Modern packaging

March 1952

ANNIVERSARY

25

1927-1952

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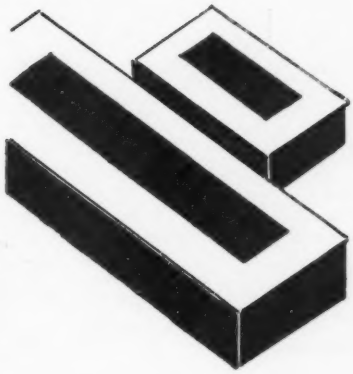
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Modern packaging

Vol. 25 No. 7 March 1952

Silver Anniversary Section

Our first quarter-century 100
The measure of MODERN PACKAGING is the measure of the field it serves.

Changing concepts of packaging 112
Our 25 years have seen a new recognition of packaging's functions.

25 years of progress in . . .

The materials of packaging 120
New materials have made possible a new era in merchandising.

Package forms 130
New kinds of packages have helped lead the way to better living.

Packaging machinery 138
Mechanical developments have paced the great expansion of packaging.

Technical knowledge 146
A new body of science has developed.

Package design 152
Economic changes have elevated design to a merchandising science.

The packaging associations 160
They have helped make packaging a common management interest.

Anniversary mailbag 166

General

Color control 189
Essentials of color-control methods in use today.

Facsimile label for meats 194
Lightproof label looks good enough to eat.

Liquids in film 196
A novelty is now a standard package.

Out of the gunny sack 199
Telescoping corrugated container solves problems for rubber-hose maker.

Transparent carding 200
Conformed acetate mounts objects on cards.

Pancakes to the fore 202
Latest redesign for Aunt Jemima mixes.

Plastic Coke carrier 205
Costs 5 times as much, lasts 10 times longer.

Design Histories 206

Sparky goes to market 210
Inside-out carton and demonstrative display make an ugly duckling into a selling star.

Stick-up promotion 212
Rubbery vinyl signs that stay where put.

Fresher chips 215
Desiccant packaging for bagged potato chips.

Packaging Pageant 216

Super-selling candy 218
A & P's latest box designs for self service.

Inhibitive slip-sheets 220
Chemically impregnated tissues solve problem.

21st Packaging Show 224

Bigger printed bags 226
New giant-sized aniline press makes colorful packages for articles as big as mattresses.

Candy house 229
Floor merchandiser that does year-round job.

New surgical convenience 230
Growing use of sterilizable foil-film envelope.

Display Gallery 232

Automatic rice 234
New in-plant bag makers and fillers bring economies to printed cellophane packages.

More pan-packages 236
Bakeries increase use of aluminum foil container.

New machinery 238

Glued-joint shippers 244
Will their indicated advantages for container makers be passed on to users?

Technical

New blocking-point test 257
Method for paraffin waxes. By H. M. FARNHAM, W. A. HERBST and H. F. HITCHCOX.

Electronic shock tester 261
It senses, measures and records shock and vibration. By J. A. SARGEANT.

Questions and Answers 264

Departments

Equipment and materials 276

Plants and people 298

For your information 322

Washington review 330

U. S. patents digest 336

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EDITORIAL

'The why and wherefore'

". . . A business paper must render service if it hopes for the support of its readers, the extent of that support being in direct ratio to the value of the service given, so that obviously there must exist, first of all, an industry, trade, business or activity in which there is need for the general dissemination of ideas pertaining to the particular operations of that field of endeavor.

"There is little need to point out the place which packaging occupies in the economic structure of business today and its importance in everyday life. There are, indeed, few articles which we wear, eat and use that are not purchased in packages, and the use of such containers is extending rapidly, for their outstanding advantages have been quickly recognized by both buyers and sellers of every type of merchandise. The package, with its convenience, cleanliness and economy, has come to stay.

"Broadly speaking, the field of packaging and the activities which will be covered by MODERN PACKAGING include the design and construction of packages or containers; packaging operations; folding, wrapping and sealing of finished packages, and the planning and execution of type and illustrative material placed on the container to indicate contents.

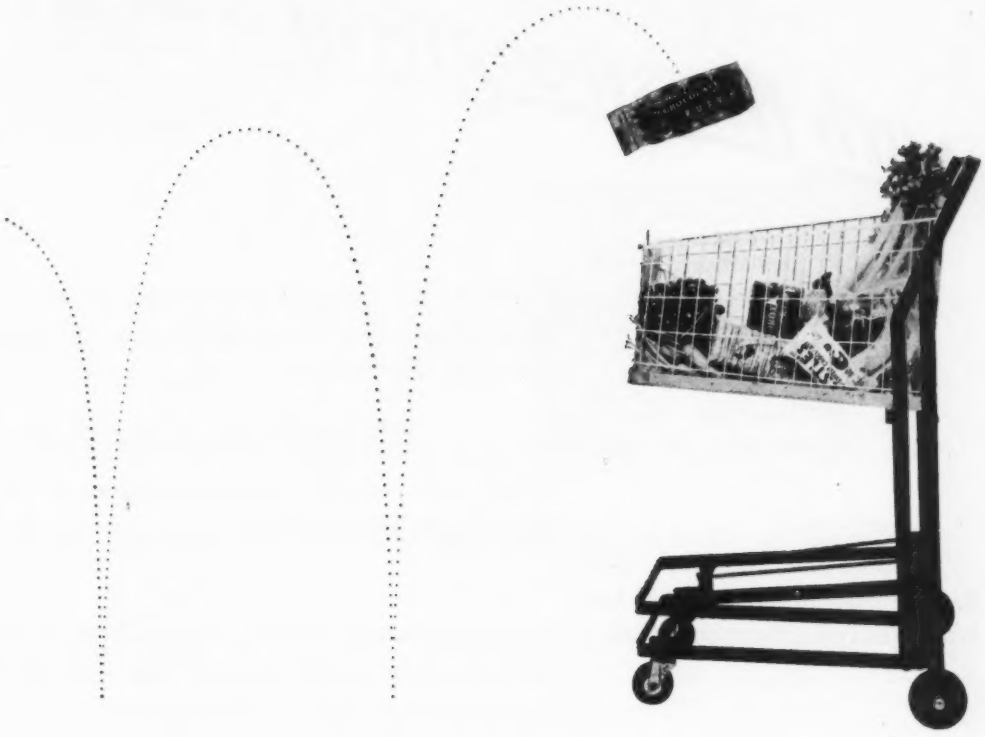
"It will be recognized that the last mentioned of these operations constitutes one of the most important factors in the distribution of merchandise today—in many cases the 'advertising message' so conveyed has been the lever for vastly increased sales.

"Economical and successful packaging methods constitute a most important link in the production chain of the manufacturer. The design of the package and the advertising message it carries are powerful merchandising assets. Executives who are concerned with the successful distribution of their products recognize these principles. It is with the practical solution of all problems involved in them that MODERN PACKAGING will concern itself."

In this Twenty-Fifth Anniversary Issue we can do no better than repeat the above statement by our Founding Editor, the late D. E. A. Charlton, in the First Issue of September, 1927, and pledge ourselves to a continued observance of these principles of service.

The Editors

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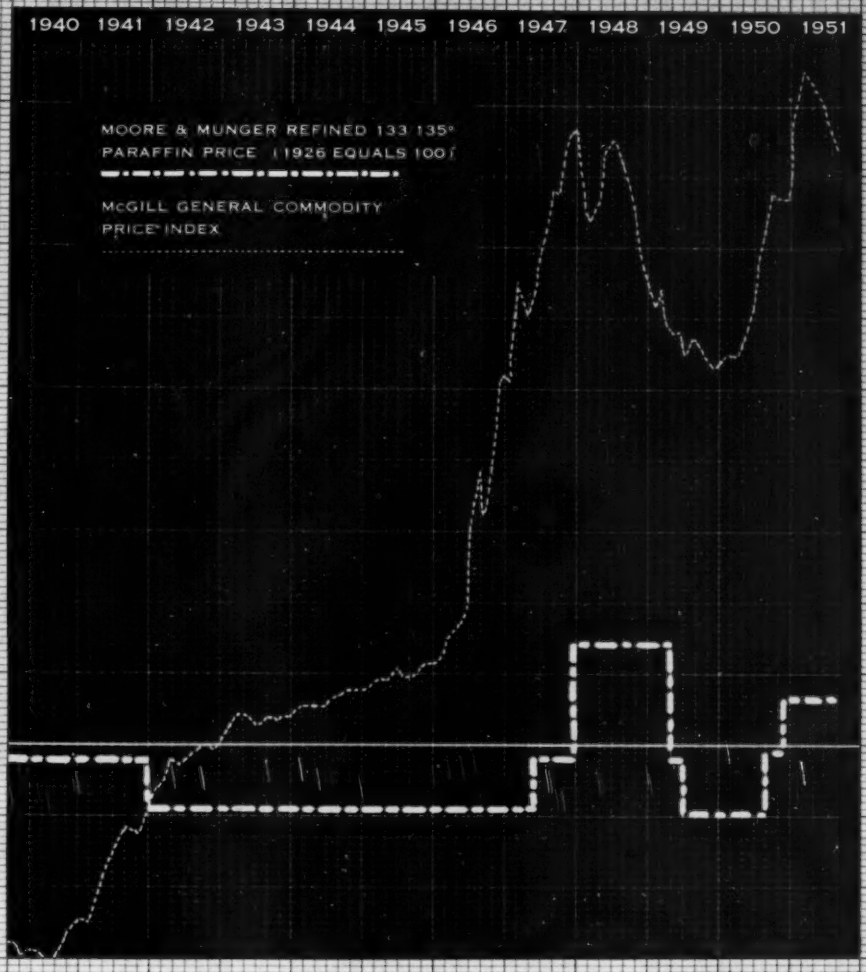
Geon materials—resins or latices—may help you improve your packaging materials or methods, or develop new ones. Write for technical advice. Ask for your free copy of the helpful booklet, "Packaging Problems Solved With Geon". Please address Dept. GL-3, B. F. Goodrich Chemical Company, Rose Building, Cleveland 15, Ohio. Cable address: Goodchemco.



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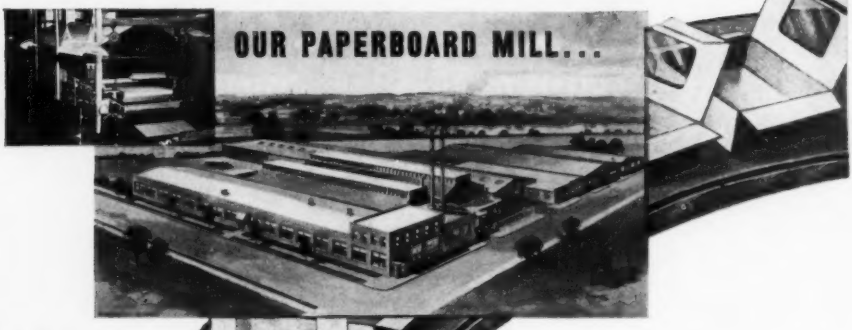


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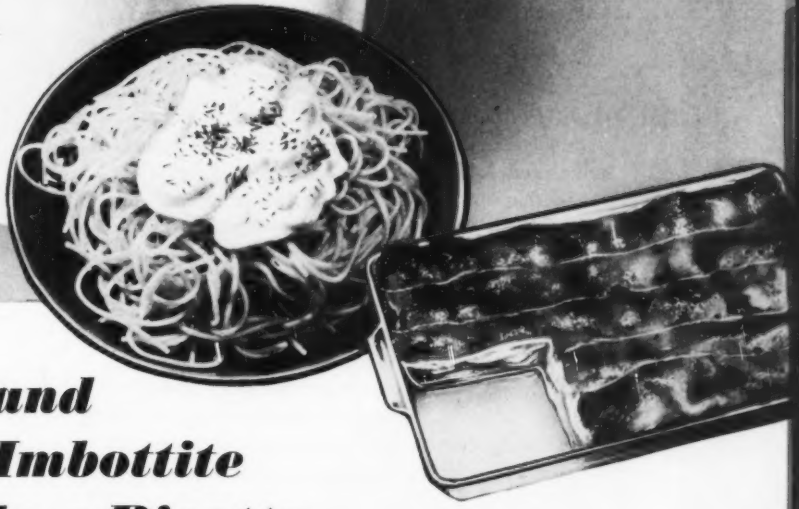
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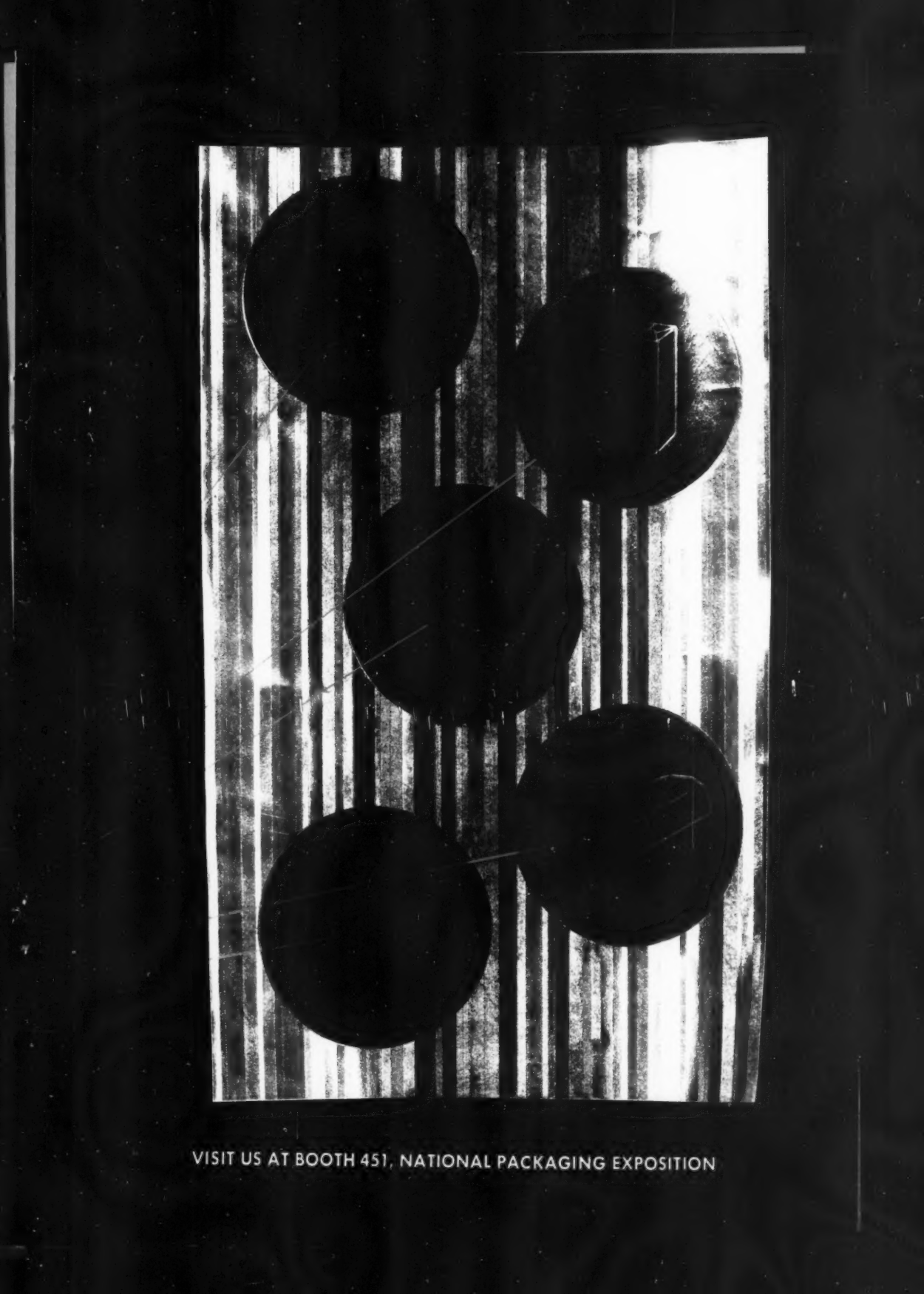
The list goes on and on... star-studded with individual product success stories. Military as well as civilian applications are rapidly extending the scope.

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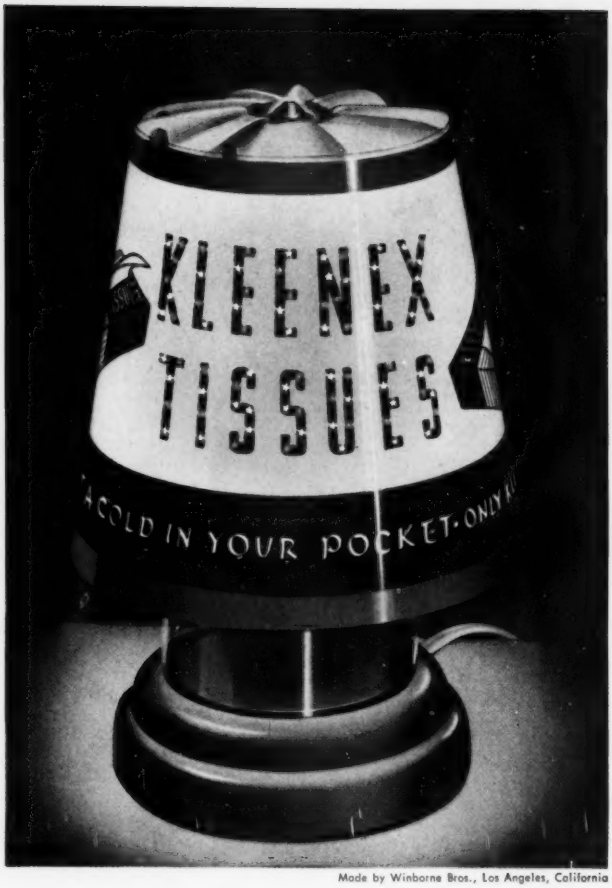
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It's the unseen quality that gives you the extra margin of safety in

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GAYLORD CONTAINER CORPORATION

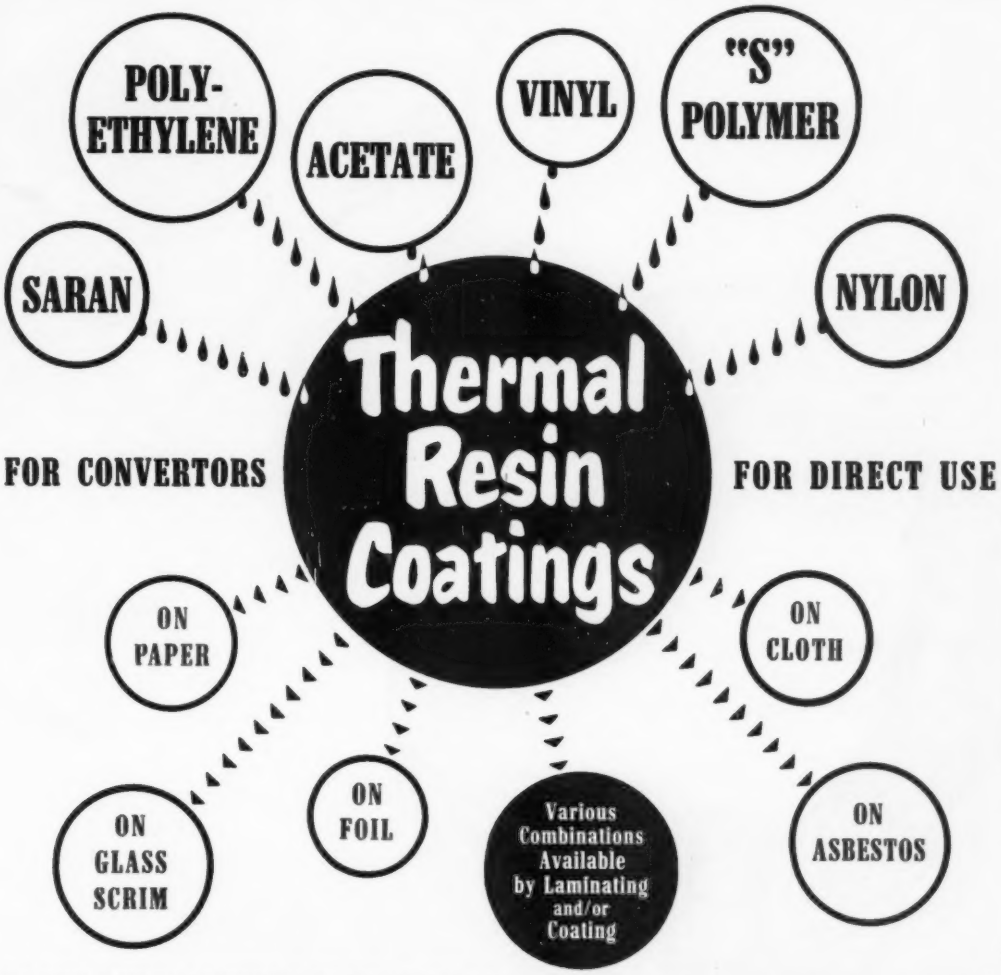
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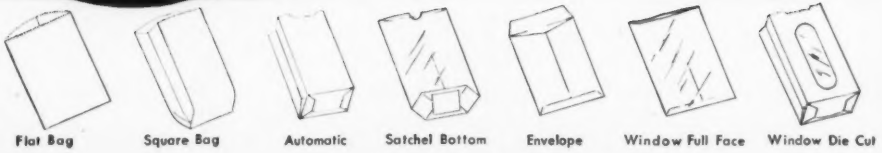
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21ST NATIONAL PACKAGING EXPOSITION





WHICH STYLE ONEIDA PACKAGE MEETS YOUR PRODUCT NEED?





Count 'em—31 different packages—each representing a different problem in design, construction, and product protection—and each and every one OVP produced!

And OVP—ONEIDA VERSATILE PACKAGING—has solved hundreds of other flexible packaging problems. Oneida's package engineers have repeatedly proved their ability not only to recommend the best film, paper or construction for the job at hand, but to follow through with design and printing know-how best calculated to produce most effective sales results.

Oneida fabricates from virtually every type of film and paper, producing printed rolls and sheets; flat, square, automatic, satchel-bottom, envelope, and window style bags—featuring such printing processes as aniline, rotogravure, and oil.

If *your* flexible packaging problem is one of design, construction, or product protection it will pay you to talk to Oneida today. Four plants throughout the U.S. are at your service. Contact the plant or office nearest you, today.

ONEIDA paper products inc.



Window Full Strip Rolls and Sheets

Converters and Color Printers of Bags, Envelopes, Sheets and Rolls from: Glassine, Cellophane, Pliofilm, Parchment, Polyethylene, Sulphite, Foil, Acetate, Kraft, Waxed, Coated and Laminated Grades . . . in Flat, Square, Automatic, Window, Satchel-Bottom, Duplex, Embossed and Heat-Lok Styles.

10 Clifton Boulevard, Clifton, New Jersey • 3629 East First Street, Fort Worth, Texas • 8119 Beach Street, Los Angeles, Calif.

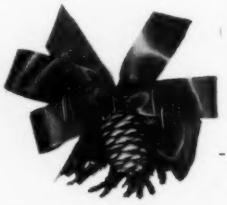


Which Package Would You Buy?

the "dressed-up" package, of course!

Millions of customers have proved it — a little ribbon makes a *big* difference in sales! Maker or retailer — whatever your packaging problems — Burlington has the answer with the most complete line of "dress-up" ribbons available. Let us show you how Burlington ribbon can put sell in your package for only a few pennies more.

Two of Burlington's exclusive "dress-up" ideas

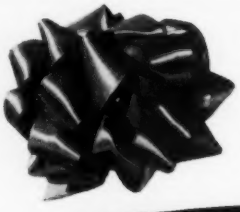


STICK-ON-BOWS

Exciting ready-made Stick-on-Bows give your package a festive look that makes *sales*. Miniature rose or pansy center, pine cone and evergreen spray center — your choice of a wide variety of exciting combinations.

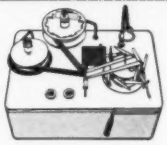


Easy as pie to apply. Sticks to anything.



TYMATIC BOW SPINNER

Amazing machine turns out 150 perfectly formed exquisite bows in less than an hour! 10 minutes instruction makes anyone an expert. A life saver in "rush periods"— a money saver *always!*



Distributed exclusively through Burlington Mills Ribbon Division.

BURLINGTON RIBBON IS THE BEST SALESMAN YOUR PACKAGE CAN HAVE!

TAKE YOUR PACKAGING PROBLEMS TO BURLINGTON

Burlington's Development Department is at your service to help solve your packaging problems . . . to create *special* ribbon wraps to wrap up sales for you!

RIBBON DIVISION

Burlington Mills

"Woven into the Life of America"

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Packaging Machine of latest and concentrated design

for powderous and gra
products in lined
overwrapped
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YOU BET WE'LL BE AT THE 21ST NATIONAL PACKAGING CONVENTION

April 1st — 4th 1952 • Atlantic City, N.J.



As we had difficulty obtaining a satisfactory location to display our aluminum products at the Exposition, we're hanging out our shingle at the Shelburne. During the Packaging Show our headquarters will be at the Shelburne Hotel (on the Boardwalk at Michigan). Come up and visit us. We'll be happy to see you.

Ask us about our 30 day delivery on

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TOP FLIGHT PACKAGING for TOP FLIGHT MERCHANDISERS





A TRIPLE GAIN resulted from features which we developed in this carton for Tender Leaf Brand Tea Bags: (1) The contents enjoy added protection against pilfering or tampering; (2) Appearance has been improved; (3) Packaging cost has been substantially reduced by a machine set-up process involving special carton construction and special machine adaptations worked out by our machine development department.

Planned Packaging MOVES MERCHANDISE

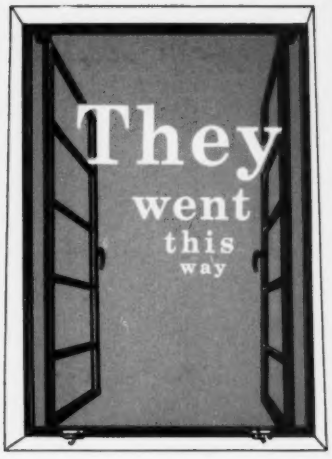
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Out the Window with these Major Packaging Worries

1. Excess Weight

Scale test proves that IMCO Polyethylene Jars are 5 times lighter than glass jars. Besides bringing "Touch Appeal" to jar packaging, IMCO Polyethylene Jars will save money in shipping costs.

2. Breakage

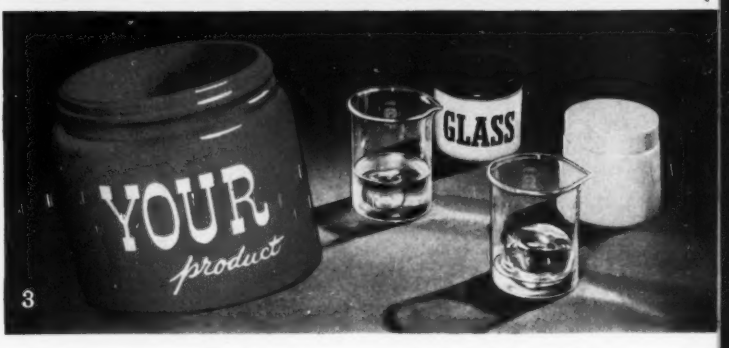
Actual high-speed photograph tells its own story. A simultaneous drop shows IMCO Polyethylene Jar intact while glass jar shatters. No more scarred dresser tops. Stop all hazards of broken glass.

3. Permeation

Actual ice cube-sun test proves that the dead air space between the double walls gives protective insulation.









Feels as fine as the cream that's in it.

Double-wall construction provides insulation —overcomes permeation.

IMCO Polyethylene Jars are available in 1, 2, and 4 ounce sizes with standard GCMI finishes. All colors, or we will match your specific color request.

IMCO unsurpassed hot stamp printing of your label in any color, gives a permanent identification for your product.

Increase your sales with consumer-appealing
IMCO POLYETHYLENE JARS
Samples available upon request.

WHEN YOU SEE THIS MARK
You're Looking at Quality

IMCO CONTAINER CORP.
Sales Agent for INJECTION MOLDING CO.,
EXCELSIOR PLASTICS CO., FLEXCEL CONTAINER CORP.
3823 Independence Ave., Kansas City 1, Mo.

Any shape under the sun

...any color of the rainbow

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There is virtually no limit to what we can produce in size, shape or color for "on-their-toes" manufacturers, who want to package for consumer appeal. With newly expanded facilities for blown Custom Contour Containers, we completely round out our service for users of plastic bottles and jars.

Let IMCO modernize your current package to Custom Contour Containers. You will save on freight costs . . . eliminate the hazards in packing and shipping . . . increase sales-appeal.

Let us show you what IMCO can do for your package . . . your sales.

WHEN YOU SEE THIS MARK—

FLEXCEL

You're Looking at Quality

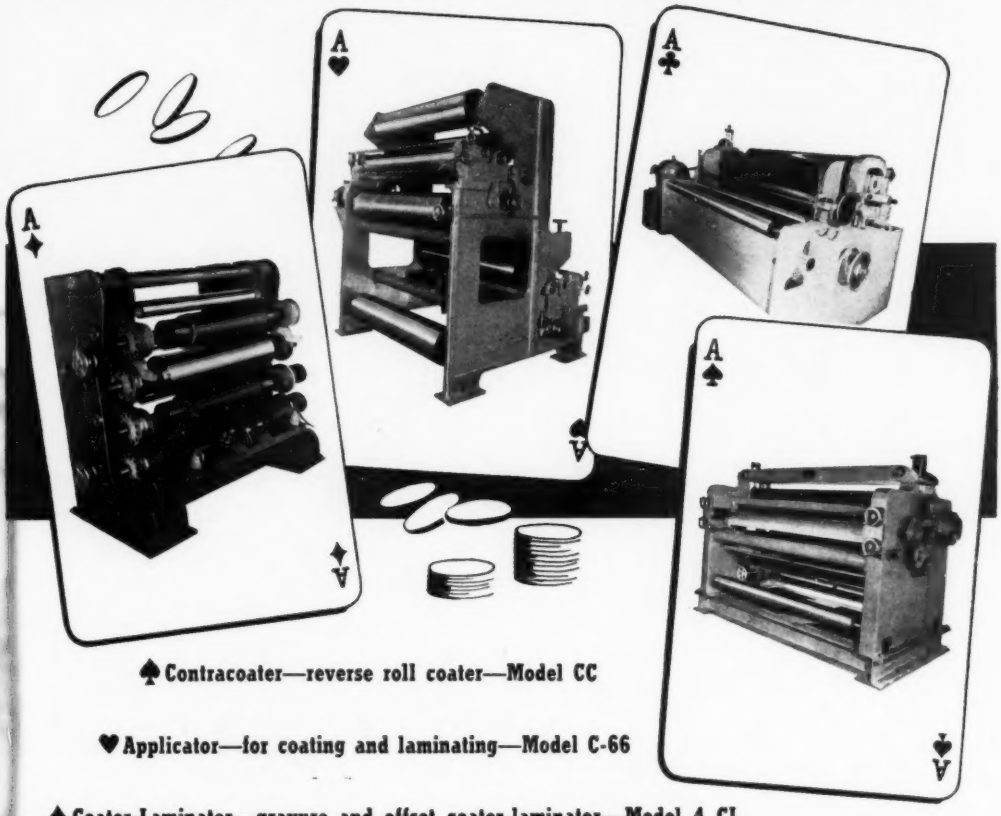
IMCO CONTAINER CORP.

Sales Agent for

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3823 Independence Ave., Kansas City 1, Mo.

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♥ Applicator—for coating and laminating—Model C-66

♦ Coater-Laminator—gravure and offset coater-laminator—Model 4 CL

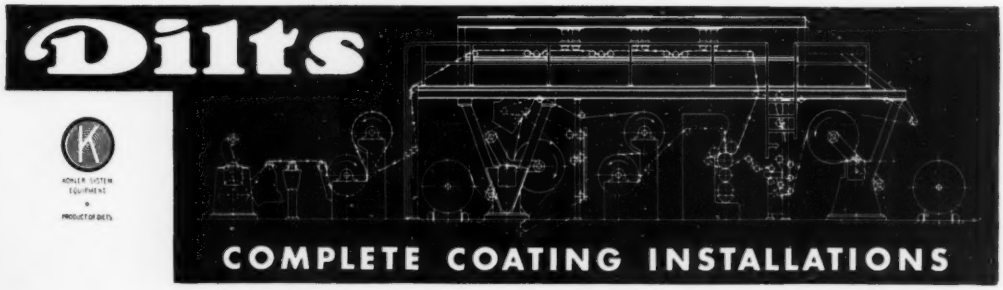
♣ Waxer—wet and dry waxer—Model 2W

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What's your problem?

WHATEVER special qualities you need in paper for packaging—whether it's paper to provide greater flavor protection, strengthen dimensional stability, improve moisture resistance, or otherwise help increase the salability of the product—you'll find Brown Company's Technical Service Division of real help.

For more than half a century Brown Company has been developing special Nibroc papers for special packaging purposes—papers that have not only improved packaging performance, but have also affected substantial processing economies.

Write Dept. DR-3 at our Boston office.

Our entire production of papers is sold directly to converters.

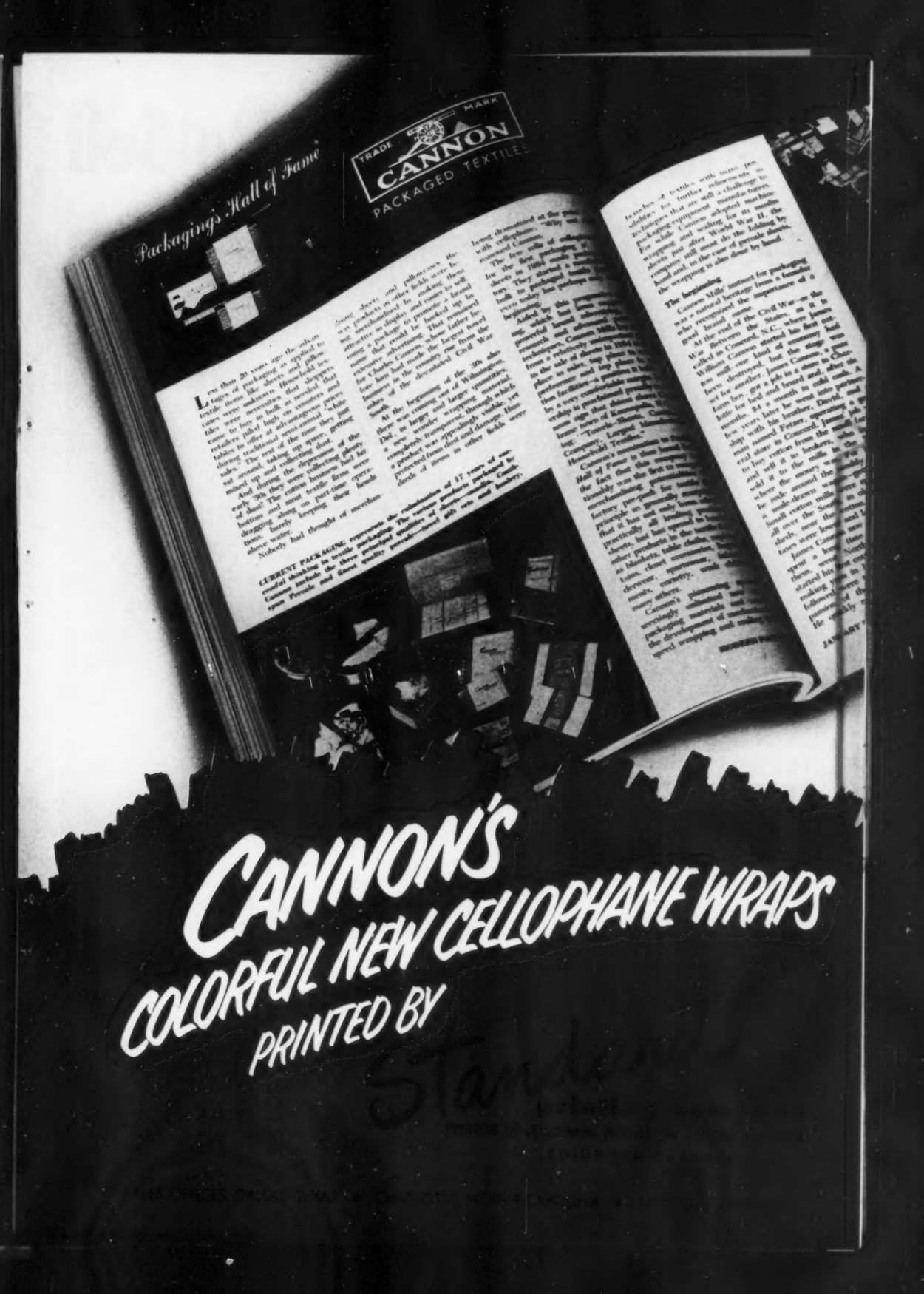
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Berlin, NEW HAMPSHIRE

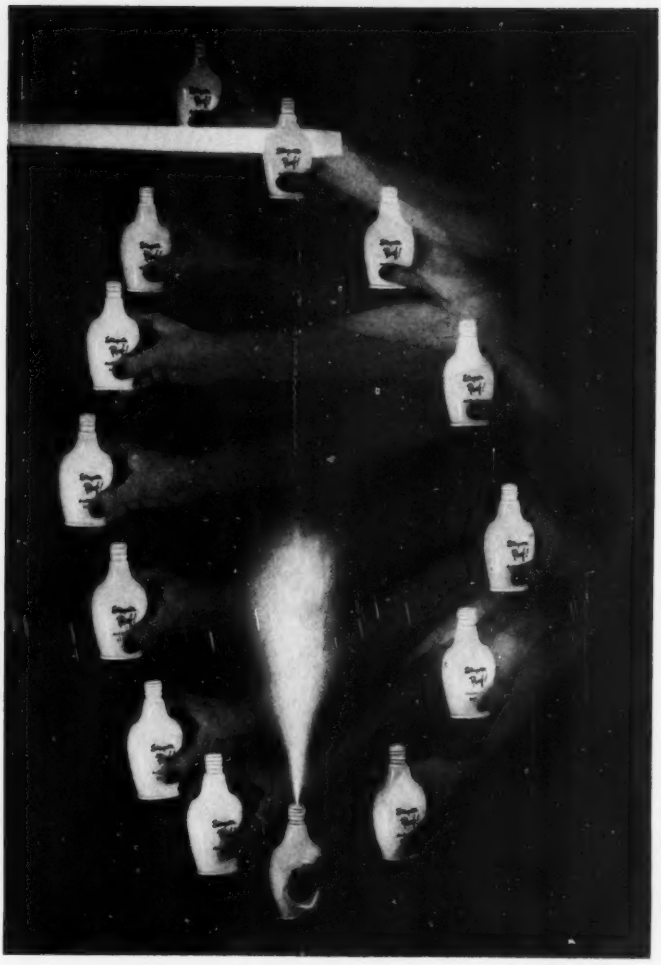
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Plaxpak® Bottles Re-Sell



Think what it would mean to you to get your product in a Plaxpak bottle. Here's a container about as light as a handful of smoke . . . smooth, almost velvety to the touch . . . smash-proof . . . self-dispensing.*

You couldn't help but fall hard for a product so handily packaged. Here's convenience that encourages frequent use—that literally re-sells your product each time it is used. So consider the Plaxpak bottle for your product—it's the container of convenience.

*Insertion of proper plug permits use of squeezable feature for dispensing contents as spray, stream or drops.

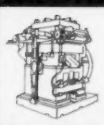
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PREMIUM QUALITY STAMPING PRESSES
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HUDSON, NEW YORK

Your Product *each time it's used*



Spray Away Foul Air. Cigar, cigarette, kitchen and bathroom odors go away with just a squeeze of this Plaxpak bottle. It contains a subtly fragrant room deodorant that freshens the air. Plaxpak bottles make it economical to provide products of this type in convenient-to-use form.



Dispenser Tube of Polyethylene. A perfect pocket package for carrying a daily dosage, or dispensing small quantities of liquids or powders, including medicines, cosmetics, lubricants. With a 4 cc. capacity, it can be sold filled or empty. Refillable, it will extract liquids from main supply. Furnished with snug-fitting cap. It won't leak.



Spray Dry Lubricants. Packaged in the Plaxpak bottle, dry lubricants can be sprayed just where needed on moving parts, dies, conveyors, locks, etc. Being unbreakable, the container is immune to accidents. It also keeps the contents free of contamination.

Plaxpak bottles are blow-molded in one piece of polyethylene in a wide array of colors and stock shapes, ranging up to two gallon capacity. Complete design and engineering assistance is available on special or custom shapes.

Only the best is good enough



HELPFUL PLAX LITERATURE
Catalogs on Plaxpak bottles as well as the thermoplastic materials produced by Plax are available on request.

PLAX
FOR PLASTICS
NOT SUBSTITUTES IMPROVEMENTS

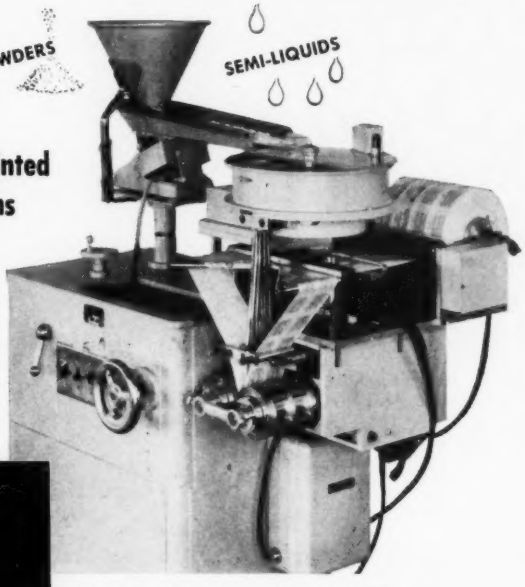
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In Canada, Plax Canada, Ltd., Toronto
Sales Offices: New York City, Syracuse, Philadelphia, Cincinnati and Chicago.

Plax® blow-molded products are made under the following U. S. Pats.: 2128238, 2175053, 2175054, 2230188, 2230190, 2268758, 2283751, 2349176, 2349177, 2349178.

MOST MODERN...MOST VERSATILE...

it's the DISMAT PACKAGING MACHINE *for*

TABLETS CAPSULES POWDERS SEMI-LIQUIDS



Packaged in plain, transparent or printed film, foil or laminated combinations

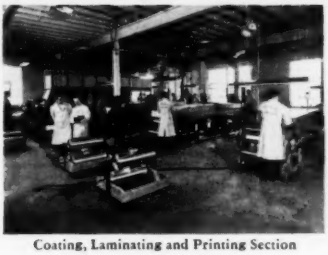
Dismat's performance records in the plants of most of the leading pharmaceutical companies show: (Names and locations on request) a minimum of maintenance, strip packages up to 300 pieces a minute with average girl operator, little or no breakage.

Width of packages may be varied up to 4½" by a simple machine adjustment, lengths varied by use of change parts. Weight variations are obtained by easily made mechanical adjustments.



The Dismat is extremely adaptable, parts are available to easily adapt machine for practically any type of product at low cost.

Photo-electric attachment is available for positive, registered printing on both sides of a package containing one or more items.



Coating, Laminating and Printing Section



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Slitting, Rewinding and Inspection Department

New modern plant fully equipped with testing and production equipment to serve you better

By using McKay-Davis Packaging materials on your Dismat machines, we assume complete responsibility for machines and materials.

Whether your product requires a transparent wrap of printed cellophane, printed paper with heat-sealing coatings, or a more complex structure consisting of a lamination of aluminum foil and films, we are equipped to serve you, with the McKay-Davis "ONE RESPONSIBILITY" PLAN.

Our laboratory and sales service personnel are trained to help you select the proper materials and to provide test data on your products. Write today for complete information.

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Manufacturers of Special Packaging Machinery and Converters of Films and Foils

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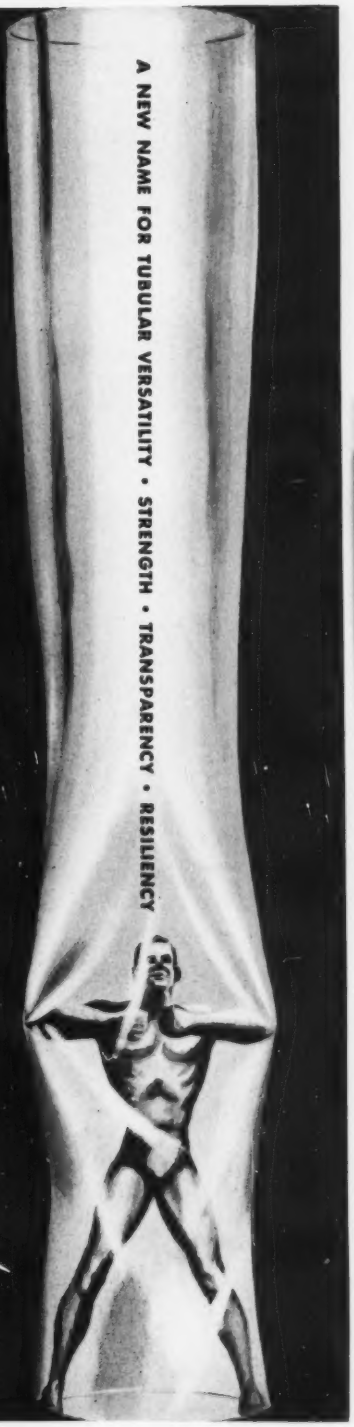
extruded tubular vinyl

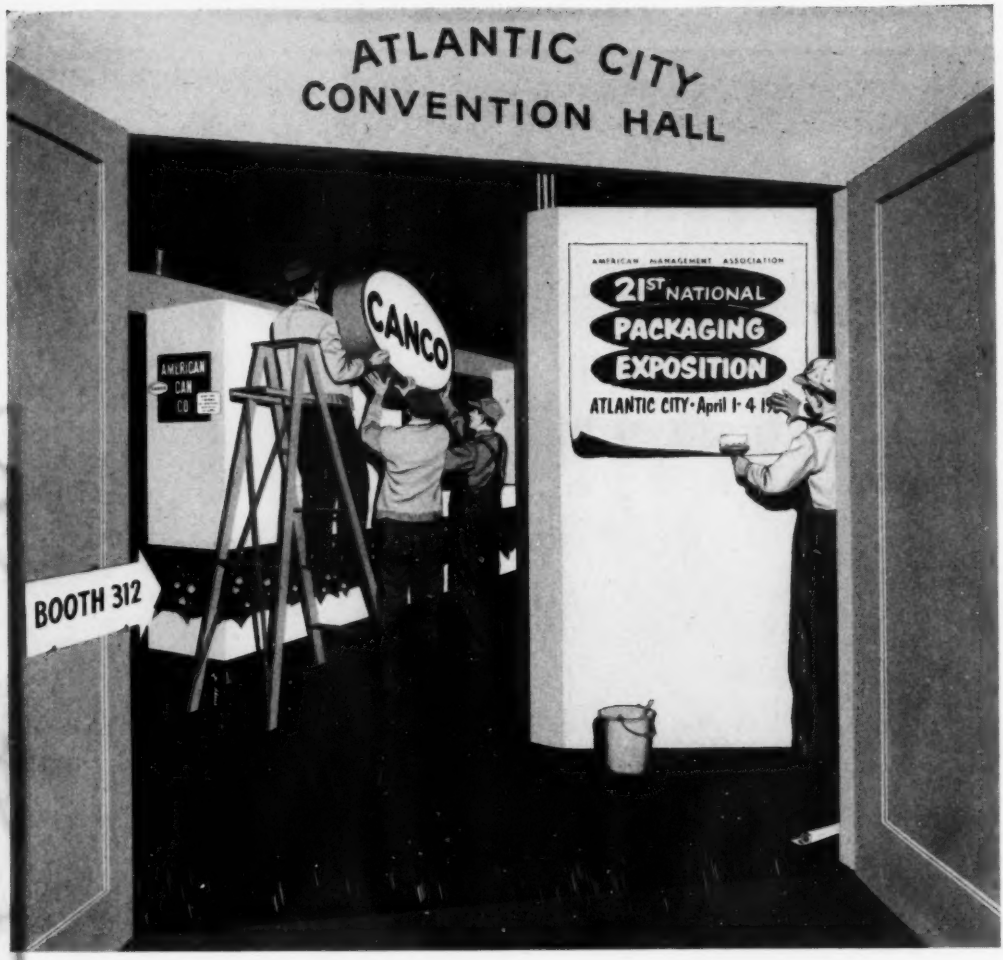
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- *Heat-sealable by conventional equipment*
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CHESLENE (Polyethylene)
another Chester product, available in sheeting and flat and gusseted tubing

Booth 850 • Packaging Show • Atlantic City • April 1-4

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America's foremost bakers use Sylvania Cellophane for quality packaging. Sylvania Cellophane gives bakery products controlled protection, guards against staleness, locks in the flavorsome aroma, and retains a smooth, smart appearance throughout shelf life.

Sylvania Cellophane is a tough, durable, completely transparent wrap that is chemically engineered to meet a wide range of packaging needs. It permits easy, low cost, high speed application. It heat seals quickly and strongly and can be imprinted in bright, lustrous colors. No other wrap for bakery products gives you so much for your packaging dollar.

Our Market Development Department will be glad to work with you in determining how your present supply of Sylvania Cellophane can be utilized more effectively—either through improved package design or the use of a different type or gauge. Write Department MP-3.

SYLVANIA DIVISION AMERICAN VISCOSE CORPORATION
General Sales Offices: 1617 Pennsylvania Blvd., Philadelphia 3, Pa.

SYLVANIA

Visit our booth at the A.M.A. National Packaging Exhibition, Public Auditorium, Atlantic City, April 1-4, 1952.

Just any Cap Won't Do!



Because, more than ever, the consumer now insists on visible closure protection of factory freshness, full strength and highest quality, as well as safety against contamination and tampering.

Conscious of this consumer insistence, we have illustrated here a few of the manufacturers who have recently turned to FILMA-Seal to give their products a competitive edge.

*REG. U.S. PAT. OFF. & ABROAD



F.S. TYPE JXVIN-1



F.S. TYPE W-18



F.S. TYPE M Sp-18



F.S. TYPE 7xM-18



F.S. TYPE AZA-18



F.S. TYPE M Sp-4



F.S. TYPE JXVIN-1



F.S. TYPE W-18



F.S. TYPE JXVIN-3

Gutmann screw caps are available with 30 different types of FILMA-Seal and we will gladly develop the 31st variant for your product, if needed.

Write for brochure describing Gutmann screw caps, FILMA-Seal and other Gutmann specialty closures.

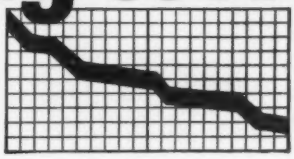
CLOSURES ARE OUR BUSINESS · · · OUR ONLY BUSINESS



FERDINAND Gutmann & COMPANY

3601 14th Ave.,
Brooklyn 18, N. Y.

Down go filling costs!

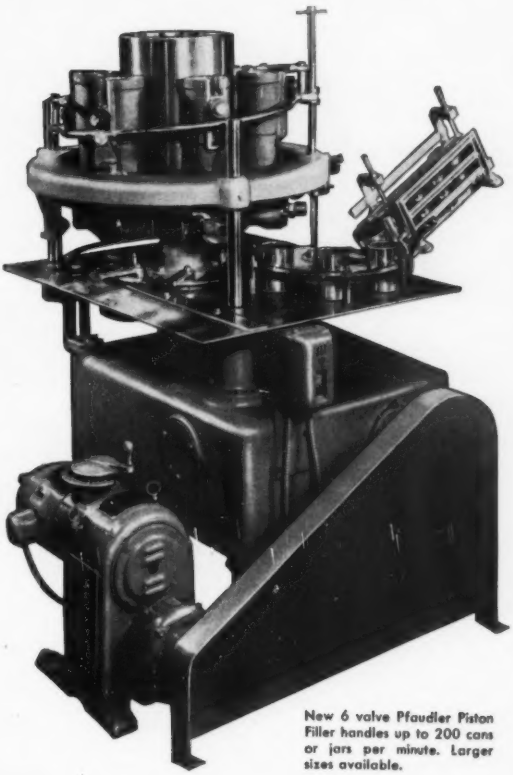


Pfaudler Piston Fillers show big savings for companies packaging liquid to semisolid products.

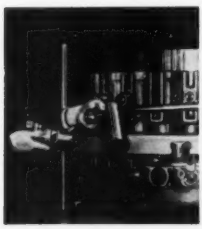
FAST—Because Pfaudler Piston Fillers deliver high-volume output at top speed, fewer fillers are needed to do the job. Capacities range from 100 to 600 containers (cans or jars) per minute, depending on viscosity of product handled. Result: saving in initial equipment.

VERSATILE—You can handle a wide variety of products with this machine—potted meats, gravies, heavy or light lubricating oils, syrups, processed cheese, to mention a few. The Pfaudler Piston Filler provides the positive action needed for accuracy of fill. Instantaneous volume adjustment controls accuracy within a fraction of an ounce.

EASY-TO-CLEAN—Hours of costly labor for cleaning are eliminated because both the pistons and self-compensating cut-off valves are removable in one piece by hand. No tools needed. Pfaudler offers this cost-saving feature exclusively! Besides, the Pfaudler "no-can-no-fill" feature protects you against wasteful spillage.



New 6 valve Pfaudler Piston Filler handles up to 200 cans or jars per minute. Larger sizes available.



EXCLUSIVE FEATURE

Pistons and self-compensating cut-off valves easily removed by hand for fast, easy cleaning. Saves hours of work, cuts costs.

See it at the National Packaging Exposition, Atlantic City, April 1-4, Booth 107, main floor.

Pfaudler

THE PFAUDLER CO., ROCHESTER 3, NEW YORK
Engineers and Fabricators of Food Processing Equipment

Gravity Fillers · Piston Fillers · Steam Peelers · Deaerators · Vacuum Pans · Evaporators

THE PFAUDLER CO., Dept. MP-3, Rochester 3, N.Y.

Send me the facts about Pfaudler Piston Fillers right away.

Name_____ Title_____

Company_____

Address_____

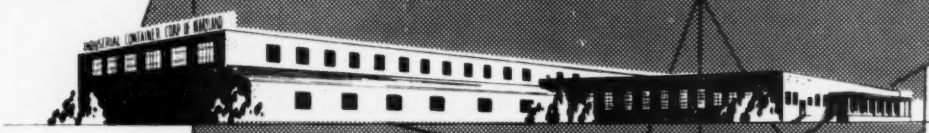
City_____ Zone____ State____

INDUSTRIAL

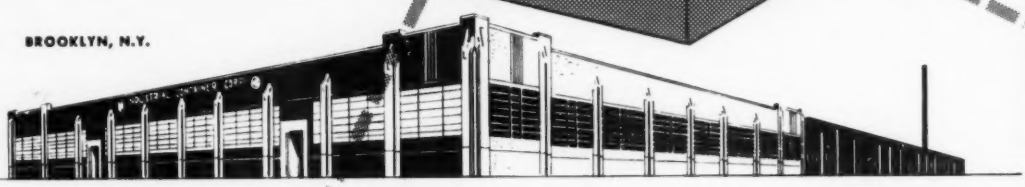
NEW MANUFACTURING PLANT

TO USERS OF CORRUGATED

BALTIMORE, MD.



BROOKLYN, N.Y.



MARCELLUS FALLS, N.Y.



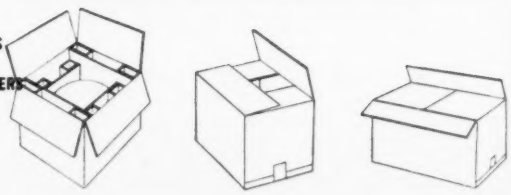
INDUSTRIAL CONTAINER

CORRUGATED SHIPPING CONTAINERS
CORRUGATED DISPLAYS
DURO-LOCK* BOX

SOLID FIBRE SHIPPING CONTAINERS
DURO-CREASE* WRAP
DURO-SEAM CORRUGATED CONTAINERS

SHIPPING CONTAINERS IN ALL REGULAR STYLES AND ANY SPECIAL DESIGN . . .

*patented



CONTAINER CORPORATION'S

KEYNOTES EXTRA SERVICE

AND SOLID FIBRE SHIPPING CONTAINERS

INDUSTRIAL CONTAINER CORPORATION'S

NEW BALTIMORE PLANT

at 8645 Pulaski Highway, brings newest container developments, veteran manufacturing experience and extra engineering services to the entire middle Atlantic area.
(Temporary sales offices at 919 St. Paul St., Baltimore 2, Md.)

INDUSTRIAL CONTAINER CORPORATION'S

MAIN OFFICES AND PLANT

2nd Avenue and 50th Street, Brooklyn 32, N. Y., where a business built solidly upon extra service and quality looks back over 38 years . . . and forward confidently into a challenging future.

INDUSTRIAL CONTAINER CORPORATION'S

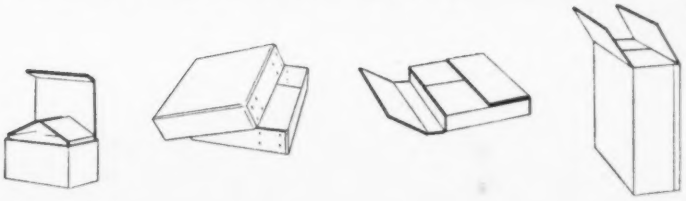
OWN PAPER MILL

At Marcellus Falls, N. Y., helps make possible the tonnage always available for prompt delivery of quality shipping containers.

Proper packing keynotes the extra ICC services rendered to wise customers everywhere.

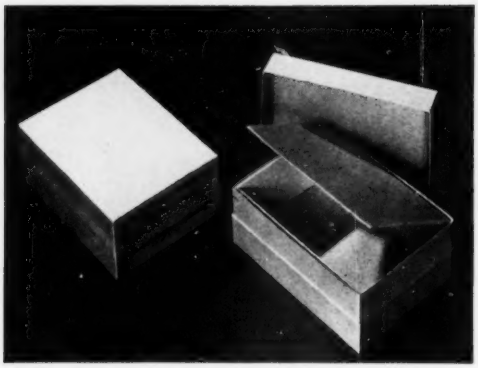
These customers look to Industrial Container... its products, its dependable supply of the world's finest Virgin American Sulphate Kraft liner boards, its extra package survey services, its extra material handling surveys. An Industrial Packaging Engineer is ready to call on you too, without obligation.

CORPORATION





SERVING THE NATION'S INDUSTRIES

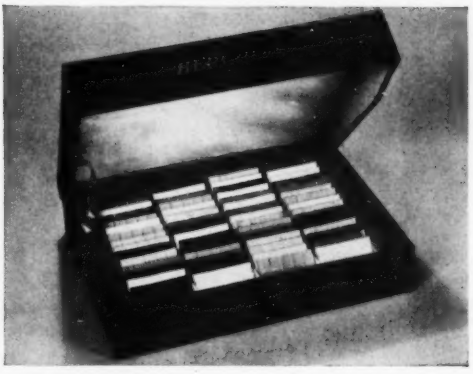


★ *Award won!*

First Award in drugs and chemicals in 1951 Set-Up Paper Box Competition. Plasma box by Miller for Sharp & Dohme.

★ *Award won!*

Honorable mention for superiority of construction went to this display case built by Miller for Hercules Powder Company.



OUR NEXT AWARD: YOUR PACKAGE?

In the 1951 Set-Up Paper Box Competition, Miller designs won more than their share of awards. Surface beauty alone wasn't responsible. Judges based their selection also on protection of contents, appropriateness of package, brand identification, convenience, and economy . . . *all* the factors that contribute to efficient solutions of packaging problems.

Whatever your packaging problem, for commercial or military products, you'll find that Miller tackles the assignment with the kind of skill and ingenuity that wins awards . . . *and* appreciation. Call in the Miller representative and find out how Miller service can help you!

WALTER P.
MILLER
COMPANY, INC.
452 YORK AVENUE, PHILADELPHIA 23, PA.

Designers and Manufacturers of Set-Up Paper Boxes

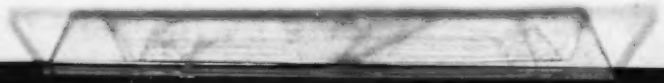
HIGHEST QUALITY ALUMINUM FOIL

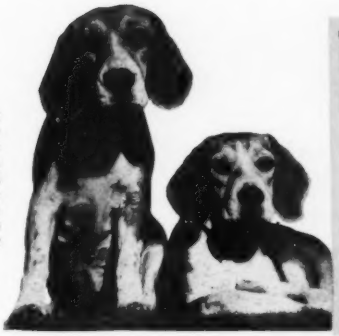


manufactured in one of America's most modern foil plants where a sincere effort is made to meet the customers' needs.

HIGHEST QUALITY TRADE MARK

ALUMINUM FOILS, INC.





THE BEAGLE is always ready for the hunt. He is accustomed to hunting in a pack and when in action waves his tail gaily and obeys all commands quickly and cheerfully. Beagles should stand no higher than 15 inches.



In Boxes, too

The Pedigree is Assurance of Thoroughbred Stock

A "PEDIGREED BOX" results from integrated production, with quality control by one management from timber to finished box.

That's why American Sugar Refining Company uses Union boxes to provide safe packaging for Domino sugar from refinery to dealers' shelves.

75 years of undisputed leadership in paper packaging goes into Union boxes. Tremendous forest resources feed five of the largest paper machines in the world, in a completely integrated pulp-to-container plant unmatched in America for size and production. And four modern box plants, strategically located, serve you promptly and dependably.

Add all these *extra* assurances of consistent quality, dependable service and fair price and it's easy to see why every month more makers of national brand products are shipping in Union boxes.



TRADE MARK UNION

Dependable Packaging Since 1872

At the PACKAGING SHOW See the Union exhibit Booth 351

UNION Corrugated Containers

UNION BAG & Paper Corporation

Principal Offices: WOOLWORTH BLDG., NEW YORK 7, N. Y.

Corrugated Container Plants: **SAVANNAH, GEORGIA • CHICAGO, ILLINOIS • TRENTON, NEW JERSEY**

this is the seal for sure protection



The rolled-on locking ring joined to the cap shows that the Alcoa Pilferproof Closure has never been opened.

Cap, when removed, breaks away from locking ring, gives permanent evidence of tampering.

You can put an end to tampering . . . *before it starts.* Simply, economically and effectively—with Alcoa's Pilferproof Closure.

This smart, leakproof type of aluminum closure can be applied automatically at speeds up to 400 a minute. It features a telltale band that discourages dishonesty. Once broken, this band cannot be rejoined to the smooth-working top.

Let us show you how easily you can safeguard your product, insure customer confidence—without policing. For full information on Alcoa's wide range of closures and sealing machines, and their availability under existing government limitations, just call your local Alcoa Sales Office, listed under "Aluminum" in your classified phone directory, or write:

ALUMINUM COMPANY OF AMERICA
1705C Gulf Building • Pittsburgh 19, Pa.

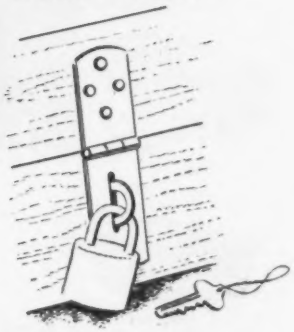
ALCOA
ALCOA CLOSURES
FORMERLY SOLD AS ALSEAL SEALS

"SEE IT NOW," with Edward R. Murrow, brings the world to your armchair . . . CBS-TV every Sunday—3:30 P. M. EST



The research phase of aniline inkmaking at BBD is a continuous operation in this modern laboratory. Using specialized instruments and methods BBD ink chemists and engineers work constantly to develop new and improved inks . . . solve your special ink problems . . . test raw materials . . . and keep watch over the quality of all BBD inks.

Does BBD Have a "Secret Formula" for Making Aniline Inks?



A formula? *Yes.* A secret? *No.*

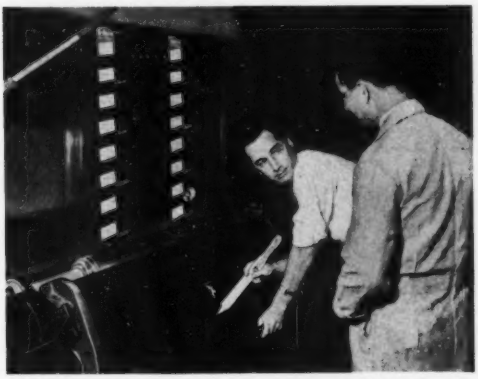
The BBD formula for making inks that give superior printing results *consistently* is to take fifteen years of specialized *aniline* ink experience — add equal parts of Product Research and Testing . . . Production Control . . . and "Shirt-Sleeve" Field Service — mix in the most up-to-date aniline ink processing equipment.

The result: inks that are first choice of aniline printers everywhere.



Nerve center of aniline inkmaking operation at BBD is this control laboratory. Here the best aniline ink technicians in the country guard the formulas for each customer's "tailor-made" inks . . . match special colors . . . initiate production work orders . . . check finished inks against quality standards.

If you would like to have a "formula" for better printing from better aniline inks . . . write today to *Bensing Bros. & Deeney, 3301 Hunting Park Ave., Philadelphia 29, Pa.*



Final, but by no means least important step in BBD's formula, is "shirt-sleeve" field work of technical servicemen who test new inks under normal plant operating conditions . . . tackle aniline printers' individual ink problems right at the press.

Visit the BBD exhibit, Booth 260-264, at the
NATIONAL PACKAGING EXPOSITION
Atlantic City, April 1st to 4th

Bensing Bros. and Deeney
SALES COMPANY
World's Largest Makers of Aniline Ink
PHILADELPHIA · CHICAGO · WAKEFIELD, MASS.
Pacific Coast: A. M. BOJANOWER, Los Angeles
Export: McLAURIN-JONES CO., New York
Canada: MANTON BROS., Toronto

FEDERAL'S VISI-BOX IS A BUSY BOX!

***BUSY** showing your product . . . **BUSY** keeping your products fresh . . . **BUSY** promoting greater sales for you!*



No. 871-0 Nut Bowl Pack
6" dia. x 1¾" deep



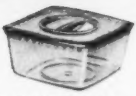
No. 870-0 Bowl
9½" dia. x 2½" deep



No. 872-0 Round Container
8" dia. x 3½" high



No. 432-0 Visi-Box Round
3½" dia. x ⅞" deep
No. 445-0 Visi-Box Round
4⅞" dia x ⅞" deep
No. 449-0 Visi-Box Round
3½" dia. x ⅞" deep



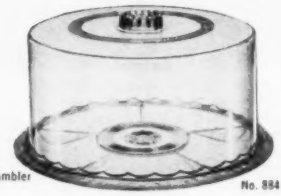
No. 867-0 Refresher Box
2½" x 4¾" x 4¾"



No. 616-0 Visi-Box
2½" x 2¼" x 8½"



No. 523-0 Cottage Cheese Pack Tumbler
(10 oz.)



No. 884-0 Cake Refresher with Tray
10¼" dia. x 5" high



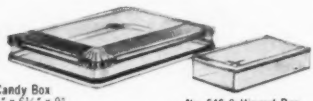
No. 769-0 Deep Bowl
5½" dia. x 2¼" deep



No. 866-0 Refresher Box
2½" x 4¼" x 10"

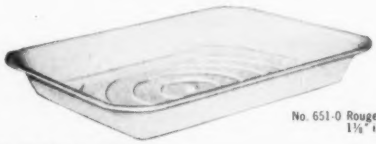


No. 780-0 Ring Holder
3" dia. x 2¼" high



No. 649-0 Candy Box
1" x 6½" x 9"

No. 646-0 Hinged Box
1¼" x 3" x 5¼"



No. 651-0 Rouge Box
1⅛" inside dia.





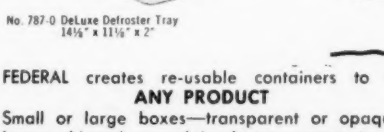
No. 650-0 Eye Shadow Box
¼" inside dia.



No. 754-0 Powder Box
3⅛" dia. x 1½" deep



No. 647-0 Bobbi Box
1½" x 1¾" x 2⅛"
No. 648-0 Bobbi Box
⅝" x 1⅜" x 2⅛"



No. 787-0 DeLuxe Defroster Tray
14⅛" x 11⅛" x 2"

FEDERAL creates re-usable containers to fit **ANY PRODUCT**

Small or large boxes—transparent or opaque boxes—hinged or plain boxes—compartment boxes—intricate design boxes and containers.

There's a **FEDERAL** rigid STYRON plastic container for every packager of dairy products, foods, confections, cosmetics, class or bulk merchandise.

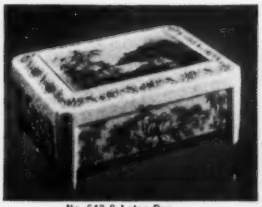
If your product requires special packaging **FEDERAL** will design and mold to your exact specifications.



No. 645-0 Heart Box



No. 644-0 Pagoda Candy Dish
7¼" x 1½"

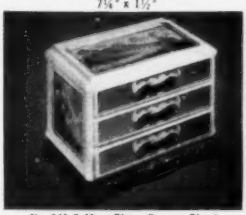


No. 642-0 Lotus Box
10" x 8" x4"



No. 640-0 Buddha Box
8½" x 4¾" x 6½"

FEDERAL VISI-BOX CONTAINERS
made of STYRON A DOW PLASTIC
Guaranteed by Good Housekeeping



No. 641-0 Ming Three Drawer Chest
7½" x 4½" x 5½"



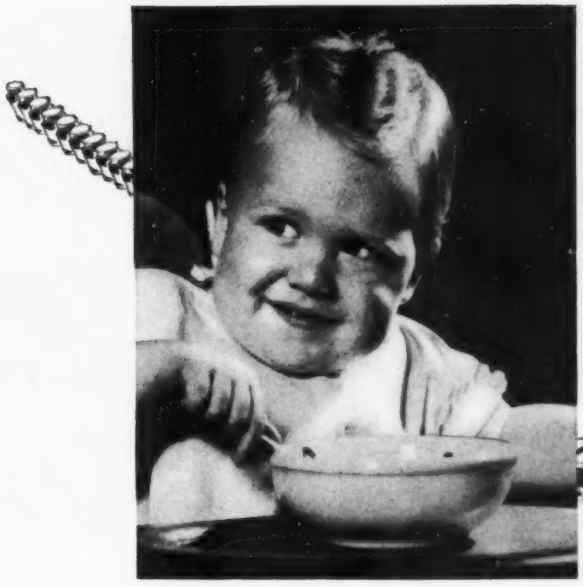
No. 643-0 Imperial Box
8" x 4" x 4"

ATTENTION:
FEDERAL designs and manufactures Polystyrene caps for the glass packaging industry.

PHONE — WIRE — WRITE for complete catalog and for further details TODAY!

FEDERAL TOOL CORPORATION 3600 W. PRATT BLVD., CHICAGO 45, ILLINOIS

IN CANADA: THE FRENCH IVORY PRODUCTS, LTD., TORONTO



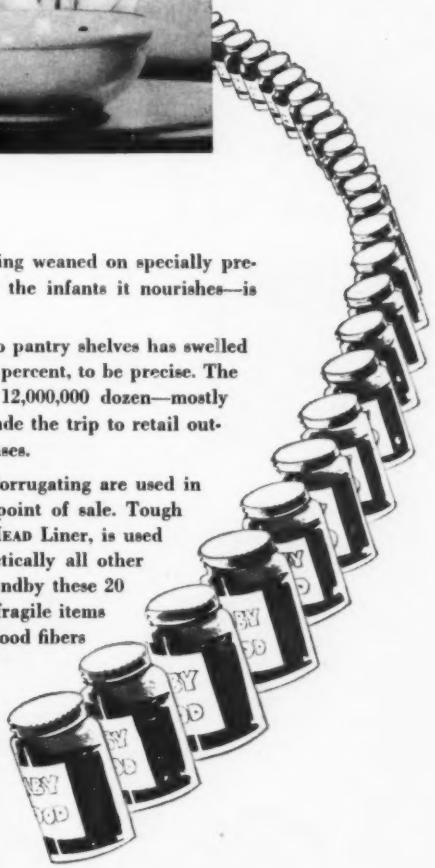
INFANT INDUSTRY

More and more babies, these days, are being weaned on specially prepared baby foods, and the industry—like the infants it nourishes—is growing healthily.

The volume of these baby foods enroute to pantry shelves has swelled steadily in the past decade—increased 444 percent, to be precise. The monthly average through 1951 exceeded 12,000,000 dozen—mostly in glass containers. Practically all of it made the trip to retail outlets snugly packed in sturdy corrugated cases.

Large quantities of MEAD .009 Chestnut Corrugating are used in bringing these baby foods safely to the point of sale. Tough MEAD Corrugating, in conjunction with MEAD Liner, is used to protect baby foods in transit and practically all other consumer goods, as well. The shipper's standby these 20 years, MEAD Board insures protection for fragile items by reason of the chestnut and other hardwood fibers which give it its extra strength.





Mead Board is sold direct by

MEAD BOARD SALES, INC.

3347 Madison Road, Cincinnati 9, Ohio

NEWARK 2, N.J. 786 Broad St. LYNCHBURG, VA. CHICAGO 6, ILL. 203 W. Wacker Drive

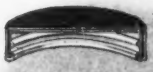
"No wonder my cream keeps so *Soft* and *Fresh!*"



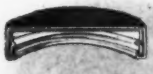
Yes, it's MeritSEAL'd ...and that means POSITIVE PROTECTION, Miss!



HARD, SCRATCH-RESISTANT COATINGS. Bright, sparkling colors for instant sales appeal. Handsomely lacquered or lithographed to suit your requirements.



PATENTED THREAD DESIGN. Spins on freely. Forms a perfect-fitting seal, but won't "freeze" to container. Only MeritSEAL has this exclusive design.



SIMPLE, EFFICIENT CONSTRUCTION. Liner and thread are inserted into a sheet metal shell. The thread holds the liner in position, and the lower edge of the shell locks the thread in place.



RANGE OF SIZE, CHOICE OF COLORS AND LINER MATERIALS. 12 standard sizes ranging from 48 mm. to 100 mm. Special sizes can be ordered. Choice of various liners to suit your needs.

The women who buy products capped with MeritSEAL love it—for its smooth, trim lines . . . smart, glistening colors . . . and its distinctive look and feel of luxury. MeritSEAL's safe, efficient seal keeps their cosmetics fresh and moist as new. Everyone who knows MeritSEAL agrees. Cosmetic manufacturers know how it compliments and enhances their product. Production men know it can be depended on for trouble-free performance on the production line. Behind-the-counter saleswomen praise the eye-catching displays—and the fast sales—they can make with products using MeritSEAL. See for yourself how really attractive and efficient MeritSEAL is. We'll be glad to send full information and samples. Simply state your color preference and sizes needed for your product.

CROWN CORK SPECIALTY CORP.
Division of Crown Cork & Seal Company

CROWN MeritSEAL—



Main Office: St. Louis, Mo. • Chicago: 401 W. Ontario Street
New York: 60 East Forty-Second Street • Western Representative: Western Crown Cork & Seal Corporation . . . San Francisco . . . Los Angeles

they don't call
us speedy
for nuthin'!

Meeting and beating emergency deliveries is nothing unusual for us – just part of our everyday production. That's why our growing list of customers includes a name like *Mason*

industrial packaging co., inc.

Manufacturers of Folding Paper Boxes

1155 Manhattan Avenue
Brooklyn 22, New York
EVergreen 9-5560



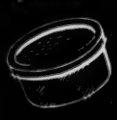


"I prefer the convenience that FLEXEEL* lids provide"

open fast, close fast, reseal vapor-tight



AMERICA'S RE-USE FAVORITES ...FOR CONTAINERS MADE OF

plastic	*metal*	*glass*	*pottery*
			
Available complete —FLEXEEL lids and matching rigid polystyrene containers. 1½, 4, 6, and 12 ounce capacities.	Spun aluminum tumblers have greater utility than ever before when they are tightly sealed with FLEXEEL lids.	Leading glass suppliers make special plain and decorated tumblers designed to fit FLEXEEL lids. Names on request.	Pottery containers gain additional favor when they are improved by FLEXEEL lids that go on or off instantly.

Your present container, regardless of material, can probably be adapted for sealing with famous FLEXEEL brand lids. Ask for details. No obligation.



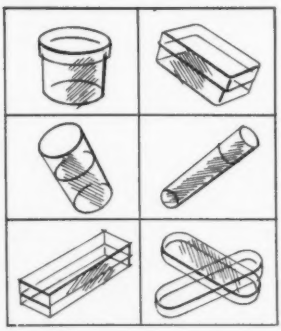
Sales records show that housewives back their preference for FLEXEEL* lids with purchases of merchandise protected by these unique snap-on polyethylene plastic closures.

Preferred because:

- FLEXEEL lids can be removed or replaced in a jiffy
- Double seal re-establishes itself automatically when lid is replaced
- Complete protection for unused portions
- Covers grip to an even tighter fit when FLEXEELS are refrigerated
- Lids available plain or printed or with molded-in designs
- FLEXEELS need no special sealing machines or facilities

Join those packagers who are increasing their sales through the use of FLEXEEL lids and containers. Samples and full information sent promptly. Write.

* FLEXEEL is a Trademark of Buckeye Molding Company. Container patents pending.



Buckeye also makes a complete line of rigid plastic re-use containers of various sizes and shapes.

BUCKEYE *Molding Company*
Miamisburg (Dayton), Ohio



Milprint packages "sell"

WHERE COMPETITION IS KEENEST!

A slam-bang slugging match—that's how you would describe the daily competition between loaves on the bread rack of a modern food store. Here packages must sell at *sight and touch* for the package is the *only* salesman on duty.

To sell, the package must be right—in design and color, in material, in printing. That's why bakers of many of the nation's fastest selling loaves make Milprint their packaging headquarters. How does your package rate in hot competition? Want to make it better? Call your Milprint man —first!

THIS INSERT PRINTED BY MILPRINT

Printed Cellophane, Pliofilm, Polyethylene, Acetate, Glassine, Foils
Folding Cartons, Bags, Lithographed Displays, Printed Promotional Material

Milprint INC

PACKAGING MATERIALS

LITHOGRAPHY & PRINTING

GENERAL OFFICES: MILWAUKEE, WISCONSIN
SALES OFFICES IN PRINCIPAL CITIES

The Finest Packaging in the World

at LESS COST



Factory No. 1



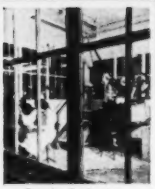
Receiving Room



Package Control Laboratory



Special Air-Conditioned Room



Powder Packaging Room



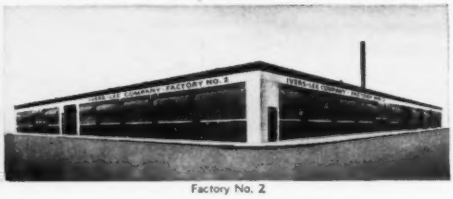
Sample Packaging



Package Assembly



Shipping Room



Factory No. 2



Unequalled Facilities give you *Speed and Economy*

Our Only Business Is Unit Packaging — our 32 years of concentrated effort enable us to make available to you — The fastest unit-packaging machines in the world — Hundreds of different high-speed machines for an endless variety of packages — Motor-driven, conveyor production — Automatic carton-making machines — Motor-skid transport — Straight-line, continuous packaging in two superb buildings, totaling 125,000 square feet, with a capacity of 13,000,000 units daily.

You send us your product in bulk — we do the rest. Without investing a single cent in capital equipment you have The Finest Packaging In The World — At Less Cost.

Creators of a thousand and one different types of Unit Packages for tablets, capsules, triturates, powders, creams and unusual products, during thirty-two years of Packaging Service.

NATIONAL PACKAGING EXPOSITION

APRIL 1st - 4th

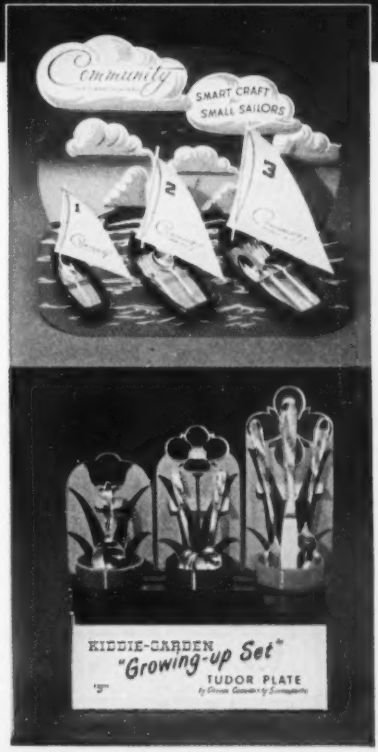
We'll be glad to greet you at our booth

UNIT IL PACKAGING

IVERS LEE CO.

215 CENTRAL AVENUE NEWARK, NEW JERSEY





Oneida Ltd. Silversmiths Feature Three "Guest Stars"

MOLDED OF *Catalin* STYRENE

Each plastic item, pictured hereon, as originally molded and marketed by Union Products, Inc. of Leominster, Mass., is a No. 1 attraction in its own field! Oneida Ltd's merchandising scouts, intent on staging a silverplate *show of shows,* spotted these numbers—recognized their talents—and lost no time headlining them in a triple feature *Community** and *Tudor* Plate* packaged display and re-use extravaganza that's box-office!

Thriftily accomplished, too . . . with lightweight, low-cost CATALIN STYRENE, and with NO mold investment! Check *your* molder . . . he might have on hand, a re-use winner for you!

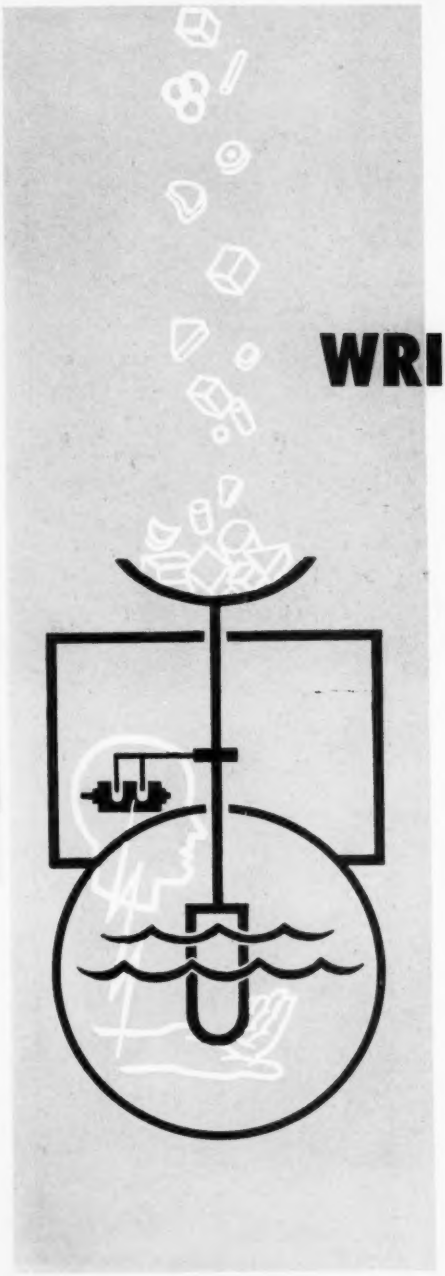
**Trademarks of Oneida Ltd.*

CATALIN CORPORATION OF AMERICA
ONE PARK AVENUE • NEW YORK 16, N. Y.

CATALIN

CATALIN'S CHEMICAL FAMILY *includes* UREA, PHENOLIC, CRESYLIC, RESORCINOL, MELAMINE AND STYRENE RESINS

World's Most Advanced Weigher In Action At Packaging Exposition



The latest model of the world's most talked about weigher will be demonstrated in action at the 21st National Packaging Exposition in Atlantic City, April 1-4.

It's the Hy-Tra-Lec Weigher (Model H) and you can see it at the booth of Wright Machinery Company, America's pioneer developer and manufacturer of automatic packaging machinery.

WRIGHT HY-TRA-LEC

Hy-Tra-Lec harnesses the principles of "positive displacement". Unlike conventional weighers, there is no spring nor beam scales. Dry products are weighed and filled into any type container at high speed with an accuracy previously never achieved.

Although the application of this new type weigher has only scratched the surface of its possibilities, Hy-Tra-Lec is already standard equipment with makers of potato chips, pretzels, cookies, crackers, candy, and a variety of foods.

The particular model to be demonstrated in Atlantic City has a weight range of up to 5 ounces and is recommended when bags are used. Other models, some of which permit fully automatic operation on lines using rigid containers, are also available.

If you can't attend the Exposition, or if you want literature for office reference write today and we will gladly send you latest facts and a list of Hy-Tra-Lec users in your particular field.

WRIGHT MACHINERY COMPANY

EST. 1893 · 500 CALVIN ST., DURHAM, N. C.
SUBSIDIARY OF THE SPERRY CORPORATION

COMPANY SALES OFFICES: JERSEY CITY · BOSTON · DURHAM
KING & ANDERSON, SAN FRANCISCO EDWIN F. DuLINE COMPANY, DENVER
R. P. ANDERSON COMPANY, DALLAS SPERRY GYROSCOPE COMPANY, LTD., LONDON

SINCE 1889

JOHNSTON

MODERN IN METHODS...

OLD IN SERVICE...

FOIL

ALUMINUM...TIN...LEAD, COMPOSITION TIN, LEAD

FOREMOST IN *Quality...*



Re-armament needs come first,
and JOHNSTON Foils are first
choice of scores of Industries
now producing for national defense.

What are **YOUR** *needs?*



JOHNSTON FOIL MANUFACTURING CO.

6016-6298 S. BROADWAY ST. LOUIS 11, MO.

SALES OFFICES
608 SOUTH DEARBORN CHICAGO ILLINOIS
34 EXCHANGE PLACE JERSEY CITY, NEW JERSEY
633 SOUTH LA BREA AVE LOS ANGELES, CALIFORNIA



From the **Gardner** *Gallery of famous American Packages*

Quality

...IS NEVER A STAND-STILL WORD

Few products achieve a reputation for quality by standing still, by indulging in the luxury of self satisfaction.

As a matter of fact, quality *itself*, as every successful manufacturer knows, is a relative thing. There is only one way to keep it out in front.

That's why, here at Gardner, we believe in never being quite satisfied with a good job. We feel an obligation to ourselves—and to our customers—to do even better, tomorrow, what we have gained recognition for doing well, today.

We think that's an important reason why you'll find so many of America's most famous products packaged in Gardner cartons.

THE GARDNER BOARD AND CARTON CO.

Manufacturers of Folding Cartons and Boxboards

GENERAL OFFICES: Middletown, Ohio—PLANTS: Middletown, Ohio; Lockland (Cincinnati), Ohio
Sales Offices in Chicago, Cleveland, New York, Philadelphia, Pittsburgh, St. Louis



Sure gives it that hearty, "he man" flavor



Yes sir! Top off a sandwich with Gold's Horse Radish and you've got real eatin'. Gold's pure products add a mighty tasty touch to lots of other foods, too . . . they give 'em a flavor that stimulates taste buds, tells 'em there's something special on hand.*



*Gold's pure Horse Radish products are manufactured by Gold Pure Food Products Co., Brooklyn, N. Y.

Crown Lug Caps, such as those used on the products shown here, are becoming more popular every day . . . and with good reason. They meet packers' requirements for fast, trouble-free application . . . dependable sealing . . . consumer satisfaction.

Perhaps your product could be sealed better and more efficiently with Crown Lug Caps. We will be glad to place the facilities of our Customer Service Laboratories at your disposal to help you select the closure and liner that is *scientifically* correct for your individual requirements. There is no cost or obligation for this service. Contact the Crown Representative in your territory or if you prefer, write us direct. Crown Cork & Seal Company, Baltimore 3, Md. *World's Largest Makers of Metal Closures.*

CROWN CLOSURES

Approved by millions of housewives

Visit Crown at Booth 675 at the National Packaging Exposition in Atlantic City • April 1st-4th.



COMPLETE INK SERVICE FOR PACKAGE PRINTERS

ANILOX—New, improved inks and coatings for aniline and Anilox presses. Give sharp, quality printing on all types of stocks—board, cellophane, foil, paper, plastic, tissue.

VAPORIN—Original heat drying inks for coffee-bag and similar package printing. Dries tough in seconds, prints sharp and clean with extra finish and slip.

GEMTONE PROCESS—Gemtone process inks are tops for fine label work. They end dry-back. Colors sparkle, dry fast, print sharp with extra "snap" for a premium finish. Dry on top of sheet without heat on sheet-fed presses.

PRESS-TESTED OFFSET—Finest offset inks for paper lithography and tin printing. Blacker blacks and stronger colors—whites that don't burn out in tints. Backed by IPI fundamental research that made possible high-speed, quality, longrun offset lithography.

VAPOSET—IPI Vaposet inks set instantly with steam—and fast enough with just natural moisture in stock for fabrication a few hours after printing; are odor free. Ideal for bread-wraps, cups and all food packages, and for corrugated and fibre board.

METALLIC—IPI metallic inks make good packages look better. Wise package printers choose IPI gold and silver inks for clean cut sparkling results. IPI has Anilox and letterpress metallic inks to suit every job. (Availability subject to government regulations.)

CARTON & CONTAINER—IPI has inks for all carton and container work—inks that resist fading, scratching, rubbing and deteriorants. IPI Vaposet inks set fast on warm, moist, corrugated board—permit fabrication shortly after printing to speed up overall production.

Anilox, Vaporin, Gemtone, Press-tested, Vaposet and IPI are trade-marks of Interchemical Corporation.

VISIT IPI AT AMA PACKAGING SHOW—BOOTH #324

INTERCHEMICAL CORPORATION—PRINTING INK DIVISION—67 WEST FORTY-FOURTH STREET, NEW YORK 36, NEW YORK

POTDEVIN Packaging Equipment

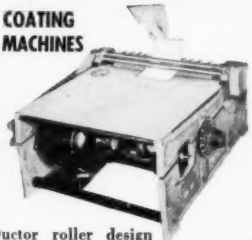
✓ Reduces Manufacturing Costs!
✓ Speeds-up Production!
✓ Improves Quality!



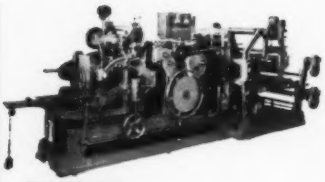
SELF-OPENING-SQUARE BAG MACHINES

High speed production of 11"x6"x2" shopping bag or multi-wall baler bags.

COATING MACHINES



Ductor roller design in 6, 9, 12 and 15 inch widths.



CELLOPHANE BAG MACHINERY

Models for single, duplex, flat-and-square, satchel-bottom bags.



S.O.S. GROCERY BAG MACHINES

Converts rolls of Kraft or sulphite paper into finished, trade-marked bags. Adjustable for ¼ lb. to 35 lb. inclusive.

OIL INK PRINTING PRESSES

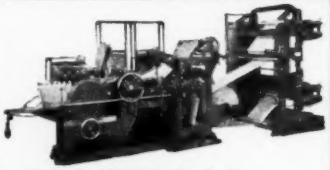


Wide range of types and sizes including one to six colors for drinking cup paper, coffee, sugar, flour bags, cellophane, glassine, parchment, etc.

STRIP GLUERS



Automatically feeds, applies glue, dries and delivers to next station for further processing. Adjustable up to 21" wide.



FLAT & SQUARE (Tucked) PAPER BAG MACHINES

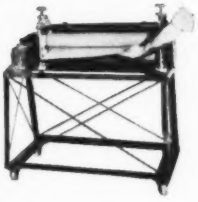
High speed production of grocery, notion, millinery, shipping container and large specialty bags. Adjustable for large range of sizes.

SHEET COATING MACHINES

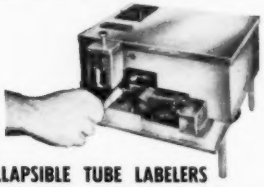


For any type hot or cold material. Sizes up to 46 inch widths and larger for sheet or roll coating.

ROTARY COMBINING PRESSES



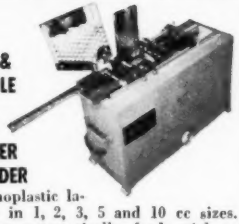
High speed combining of glued materials up to ½" thick and 30" wide. For hand feeding flat sheets or in production line for web materials.



COLLAPSIBLE TUBE LABELERS

Applies 32 slip labels per min. to collapsible tubes. Automatically forms label and ejects label on tube. Machines for ⅛, ¼, ½, 1 ounce tubes.

VIAL & AMPULE LABELER & CODER



Thermoplastic labelers in 1, 2, 3, 5 and 10 cc sizes. Hopper automatically feeds vial or ampule for labeling and coding.



SACK (Satchel-Bottom) PAPER BAG MACHINES

Wide range of sizes for making single or multi-wall poultry, charcoal, potato, flour sacks and shopping bags.

POTDEVIN has been designing and building superior quality equipment for the packager since 1893. Consult our engineers on any problem. No obligation. Write for detailed information on any equipment illustrated in this ad.

See the latest POTDEVIN developments at the Packaging Show. Visit Our Booth #460

ESTABLISHED IN 1893 POTDEVIN

POTDEVIN MACHINE CO. 243 North St., Teterboro, N. J.

Designers and manufacturers of equipment for Bag Making, Printing, Coating, Laminating, Gluing and Labeling.



Proud of Your Product? Proud of Your Name?

Data courtesy Consolidated Lithographing Corp. Glen Cove and Voice Roads, Carle Place, Long Island.

DRESS THEM UP WITH COATINGS BASED ON VINYLITE *BRAND RESINS*

Labels coated with VINYLITE Brand Resins look brighter and cleaner because they *are* brighter and cleaner. The printing shines with a fresh, high gloss, proof against dirt and abrasion. In store or home, your label will always stand out, always look its best.

Coatings based on VINYLITE Brand Resins resist oil, alcohol, alkalies and most strong acids. They're flexible and tough—won't crack or peel—take a lot of handling and scuffing. Best of all, they transmit these qualities to whatever they cover—paper, cardboard, or foil.

Consequently, you can use them on packaging and display materials, too. They come in a wide range of easily cleaned, transparent and translucent colors. They won't affect folding endurance and are readily heat-sealable. Apply them with conventional roller-coating or spray equipment.

No wonder VINYLITE Resins are used in scores of products for defense and basic industry! Better look into coatings based on them now. For technical information and a list of suppliers, write Dept. LX-55.

Be sure to visit
BAKELITE'S EXHIBIT
at the
PACKAGING SHOW
Convention Hall, Atlantic City
April 1-4

Vinylite
BRAND
RESINS

TRADE MARK

BAKELITE COMPANY
A Division of
Union Carbide and Carbon Corporation
30 East 42nd Street, New York 17, N.Y.

Something to Paste in your Hat!

When you visit the PACKAGING SHOW in ATLANTIC CITY, April 1st to 4th, Don't fail to see the New High-Speed ENILINA PRESS, featured at the H. H. HEINRICH EXHIBIT ...It's New... It's Different... It's Worth Looking At!

SEE IT AT BOOTH 475



Full information regarding specifications, prices and deliveries sent on request

H. H. HEINRICH COMPANY 200 VARICK STREET, NEW YORK 14

You are cordially invited to the
H-A Gallery of Glass at the Packaging Show
in Atlantic City April 1 to April 4, inclusive.



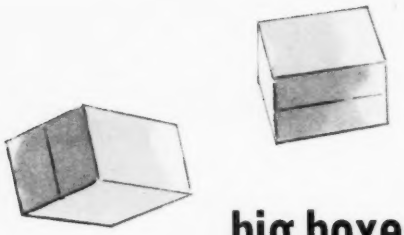


We are proud of these fine old pieces of glass—not for their value, but for their beauty and design and mostly for what they have taught us about glass containers through the centuries.

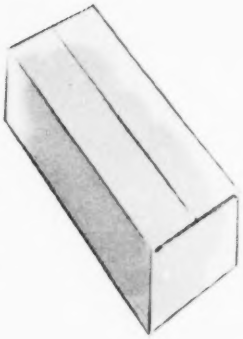
Into every glass package we make goes some of that learning.

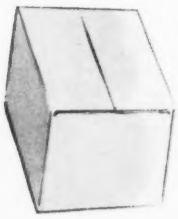
The knowledge obtained from these pioneers coupled with today's functional design and current mass production methods are important reasons why glass always occupies the top place in packaging through the centuries.

HAZEL-ATLAS GLASS COMPANY *WHEELING, W. Va.*

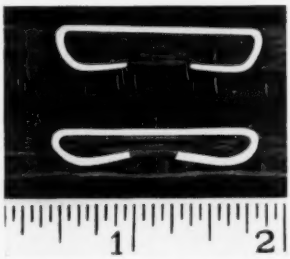


big boxes
little boxes
long boxes
short boxes
fat boxes
square boxes





Cross section view of upper standard staple clinch and lower concealed staple clinch actual size.

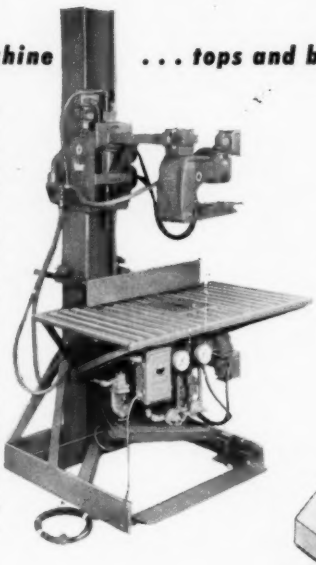


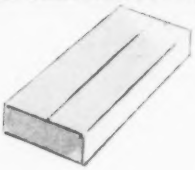
close 'em all on one machine . . . tops and bottoms simultaneously!

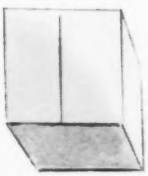
Whatever your closure problem—if you use corrugated and fibre cartons, and particularly, *if you use different size cartons*—it will pay you to investigate International stapling machines!

International stapling machines close tops and bottoms simultaneously—and close 'em fast. They use less staples in an exclusive pattern (Rule 41 CFCPR)—they save you material, manpower and space—they close different size cartons on the same machine.

International stapling machines are made in 30 models and prices to exactly fit your needs—from portable hand operated models to the latest in automatic equipment. Investigate today—join the hundreds of nationally famous companies who are now saving up to 50% on shipping costs with International machines. Write for full details.









a seal of security

INTERNATIONAL STAPLE & MACHINE CO.

HERRIN, ILLINOIS • *Distributors in principal cities*

Borden's made its flavor famous



ALCOA FOIL keeps it fresh!

It happened by accident. But from Emil Frey's fortunate discovery sixty years ago, came the formula for one of America's most famous cheeses—Liederkranz Brand, made only by The Borden Company.

No accident is the Liederkranz wrapper of sparkling Alcoa Aluminum Foil. Parchment-backed, for convenience and extra protection, it seals out harmful light, seals in the moist, creamy goodness and lusty robust flavor of this lordly cheese.

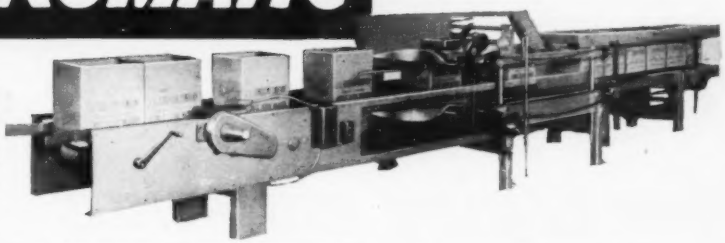
Alcoa, and its customers—the nation's leading packaging firms—are continually developing new ways to package many types of products better . . . in foil and foil laminates. For full information on possible applications and availabilities, just call your local Alcoa Sales Office, listed under "Aluminum" in your classified phone directory, or write: ALUMINUM COMPANY OF AMERICA, 1760C Gulf Building, Pittsburgh 19, Pennsylvania.

ALCOA
ALUMINUM

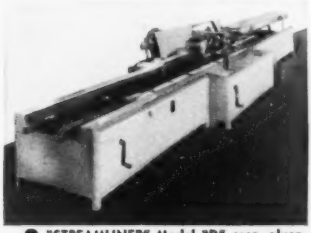

SUPERIOR QUALITY
SATISFIED CUSTOMERS
Durethene Chicago
The Secret of our Success
DELIVERY AS PROMISED
★★★ POLYETHYLENE FILM ★★★
The success of Durethene has, of course, been the direct result of the success of Durethene film converters. We have realized that the most important single factor in our business is 'customer satisfaction.'
There is no doubt as to the future of polyethylene packaging. Market surveys indicate a continued growth rate comparable to what we have experienced during the past few years. Further expansions of our production facilities are being made to keep pace with the increasing production of raw materials and the growing demands of our customers, the packaging industry.
PROMOTIONAL ASSISTANCE
PROGRESSIVE ENGINEERING
DURETHENE Corporation
1859 South 55th Ave. (Cicero Post Office) Chicago 50, Illinois
Olympic 2-1600
POLYETHYLENE AND VINYL PLASTIC FILM IN SHEET OR TUBULAR FORM FOR THE PACKAGING, LINER AND NEEDLE INDUSTRIES

LOAD, GLUE, SEAL and IMPRINT YOUR CORRUGATED SHIPPING CASES WITH PACKOMATIC

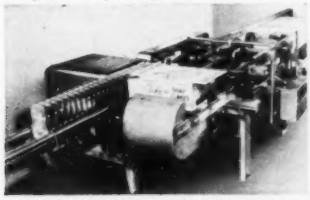
Share the *know-how* to which America's foremost packaged goods manufacturers turn for modern, *automatic* PACKOMATIC fibre shipping case packing, gluing, sealing, dating (coding) and imprinting equipment. *Coupon below will speed information.*



1 Model "D" shipping case gluer-sealer for high speed, moderate or slow production lines. Automatically applies wide variety of glue spreads. Handles both light and heavy corrugated or solid fiber containers. Adjustable for wide variety of case sizes and weights.



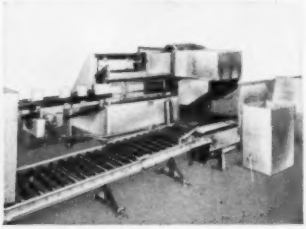
2 "STREAMLINER" Model "D" case gluer-sealer for food, dairy and beverage operations open to public.



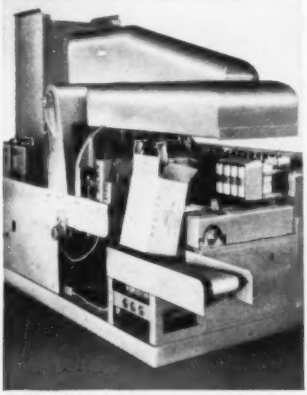
3 COMBINATION END LOADER-SIDE SEALER takes round or rectangular packages, assembles and loads them into cases previously squared and registered.



4 SIDE GLUER-SEALER for cases going through in *horizontal* position such as end-open, tall and narrow cases with overlap as well as regular butt flaps.



5 PACKOMATIC shipping case loader automatically packs filled cartons into cases and starts them on their way to gluer-sealer unit.



6 PACKOMATIC shipping case former-packer delivers up to 1200 *loaded* shipping cases per hour, *automatically.*

Turn to PACKOMATIC'S nearly 30 years of helping America's foremost package merchandisers reduce production costs, keep resale prices in line, and step-up earnings with *modern, automatic* packaging —from carton forming and filling, to shipping case loading, sealing and imprinting. PACKOMATIC *automatic* packaging equipment includes:

CASE PACKERS & SEALERS
CASE IMPRINTERS
CARTON FILLERS & SEALERS
VOLUMETRIC FILLERS
CARTON MAKING MACHINES
DATING (CODING) DEVICES
PAPER CAN FORMING & FILLING MACHINERY

Preserve and protect the shelf appeal of your packages with *modern, automatic* PACKOMATIC packaging machinery. Save time... floor space... labor... money!

★ ★ ★

Regardless of the size or scope of your operation, your inquiry incurs no obligation to purchase. Write J. L. Ferguson Company, Route 52 at Republic Avenue or phone Joliet 6275.

T. M. REG. U. S. PAT. OFF.



FOR LOWER PACKAGING COSTS TOMORROW...MAIL COUPON TODAY

PACKOMATIC
PACKAGING MACHINERY
J. L. FERGUSON CO. JOLIET, ILL.

Chicago • New York • Boston • Baltimore • Cleveland • Denver
New Orleans • San Francisco • Los Angeles • Seattle • Portland • Tampa

J. L. FERGUSON COMPANY
141 Republic Avenue, Joliet, Illinois

☐ Please send me "The Atlas Story". We are interested in ☐ automatic cartoning machinery ☐ shipping case loading ☐ sealing ☐ imprinting machines for * .....

Company: .....

By: ..... Title: .....

Address: .....

* Indicate product here.

30 YEARS

of service to printers of packaging materials

For presses or slitters that deliver *superior* results... call MARCONETTI. Our 30-year record of successful installations is your assurance that we can analyze your needs accurately . . . provide the best equipment for your purpose.

Multicolor Rotary
KIDDER PRESSES
Aniline • Gravure • Letterpress

High-Speed, Shear-Cut
KIDDER SLITTERS
Surface and Center-Wind Types

A. E. MARCONETTI, INC.
Empire State Building, New York 1, N. Y.
PENNSYLVANIA 6-0795

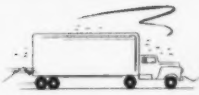
1922 1952

Sales Agents for KIDDER PRESS CO., INC.

Our Headquarters during the PACKAGING EXPOSITION: The SHELBURNE, Atlantic City, April 1-4



on the Line...



on the Road...

or in the Consumer's hand...





there's never a doubt about

BERNARDIN

METAL SCREW CAPS

For trouble-free closing on your line, for tight seals, for easy opening and reclosing in the consumers' hands, write, wire or phone Bernardin Bottle Cap Co., Inc., Evansville, Indiana.

SINCE 1881—AMERICA'S FIRST MANUFACTURER OF METAL CLOSURES



IT'S PROFITABLE TO SHOW PRIDE IN YOUR PRODUCT

...and to manifest that pride in packaging accessories of a quality that influences consumer preference.



Ridgelo clay-coated stock for merchandise tags, folders, cards, etc. is custom-made to the same superior standards as its boxboard for packages. Superb appearance, fast colors, and fine printing surface are among its many advantages.

Ask for samples in a grade and colors for your own requirements.

Ridgelo
CLAY COATED
REG. U.S. PAT. OFF.
PRODUCTS

MADE AT RIDGEFIELD, N. J.
BY LOWE PAPER COMPANY

Representatives

H. B. Royce, Detroit
Philip Rudolph & Sons, Inc., Philadelphia
A. E. Kellogg, St. Louis
Norman A. Buist, Los Angeles



Like a light in the night . . .

It's a Standout!

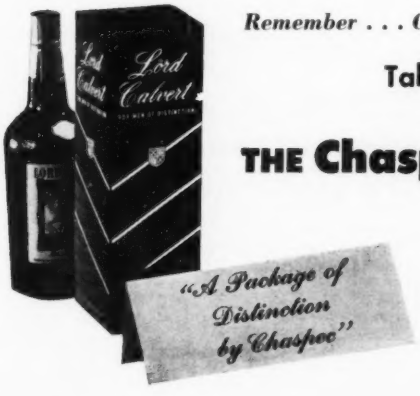


The new Lord Calvert gift carton, a Chaspec creation. Exquisitely flocked and gold leaf stamped. For its story, lift the tipon.

An inventive approach to packaging, using unusual, unconventional materials and methods, makes Chaspec creations truly "Packages of Distinction."

The wide range of Chaspec facilities makes it possible to do your entire job under a single roof, with this thirty year old organization assuming complete responsibility for your satisfaction.

Just give Chaspec your thoughts about the package or point-of-sale display you need. You'll be pleasantly surprised by the fresh answer our staff of budget-conscious experts will dish up.



Remember . . . Chaspec packages and displays

Take the lead at the point of sale

THE Chaspec MANUFACTURING COMPANY

GREENWICH, CONNECTICUT

Makers of fine packages and displays since 1920



The Better the Product

the more important that it have a well designed and constructed container.

CLEVELAND CONTAINERS

are made in sizes to meet one's exact needs.

They are sturdy to protect against careless handling. We design them to meet your packaging and shipping requirements, as well as other various uses.

For example—with pouring plugs—turn sifter tops—pouring spouts and for other similar applications.

Ask also about our heavy-duty Containers with reinforced ends that eliminate loss in transit.



PROMPT DELIVERIES

Fast production facilities from our strategically located plants.

See our Exhibit No. 540 at the AMA National Packaging Exposition April 1-4 at Atlantic City.

Send for our latest literature

The CLEVELAND CONTAINER Co.

6201 BARBERTON AVE. CLEVELAND 2, OHIO

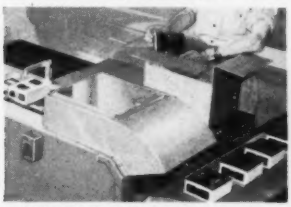
- **All-Fibre Cans • Combination Metal and Paper Cans**
- **Spirally Wound Tubes and Cores for all Purposes**

PLANTS AND SALES OFFICES: Cleveland, Detroit, Chicago, Plymouth, Wisc., Jamesburg, N. J., Ogdensburg, N. Y. • ABRASIVE DIVISION at Cleveland SALES OFFICES: Grand Central Terminal Bldg., New York City; Washington Gas Light Bldg., Washington, D. C.; West Hartford, Conn.; Rochester, N. Y. Cleveland Container Canada, Ltd., Prescott, Ontario • Offices in Toronto and Montreal





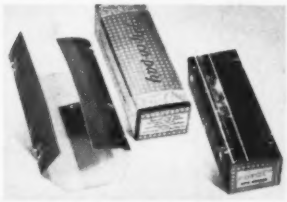
50% SAVING in box sealing costs resulted when this manufacturer installed semi-automatic box sealers which cut and apply set lengths of "Scotch" Cellophane Tape.



HIGH-SPEED BOX SEALER turns out 60 perfectly sealed boxes a minute *automatically* at the Boston plant of Gillette Safety Razor Company.



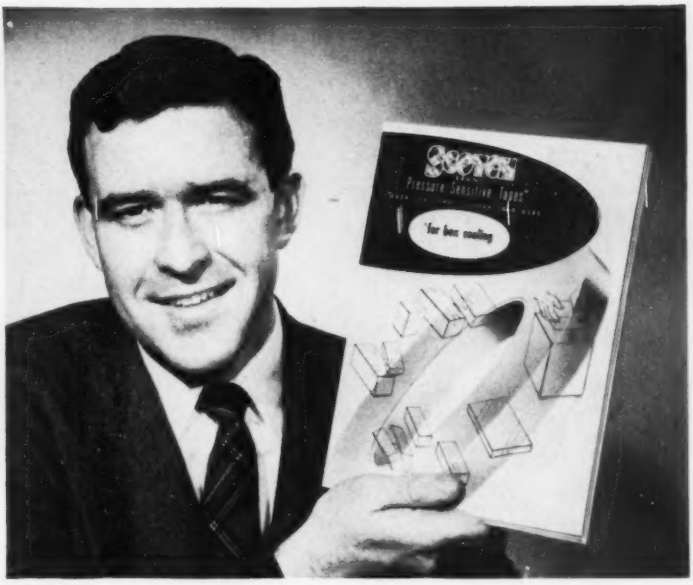
TREATED BOXES are tightly sealed with "Scotch" Acetate Fibre Tape. This transparent tape sticks fast on treated papers, foils and laminates.



SPECIAL HOLIDAY SLEEVES are held in place invisibly with transparent "Scotch" Cellophane Tape. Simple, easily-operated dispensers speed all kinds of sealing jobs.



CODING, DECORATING call for "Scotch" Cellophane Tape in 13 brilliant colors besides the familiar transparent variety. All stick at a touch without moistening.



"This booklet showed us how to cut our box-sealing costs!"

GET YOUR FREE COPY of this new folder! It tells how to simplify your box-sealing operation, do a better job faster with the help of "Scotch" Pressure-Sensitive Tapes.

Actual application photos show you how well-known manufacturers have solved some of their packaging problems, are enjoying new savings with this *modern* way of sealing with tape.

Use coupon below for your free copy . . . send it in *today!*

We're looking forward to seeing you at Booth 571
A. M. A. National Packaging Exposition in Atlantic City, April 1-4

Minnesota Mining & Mfg. Co.
St. Paul 6, Minnesota

☐ Please send brochure on Box Sealing.
☐ Have a representative call.

Name.....
Title.....
Firm.....
Address.....
City.....Zone....State.....



The term "Scotch" and the plaid design are registered trade marks for the more than 200 pressure-sensitive adhesive tapes made in U.S.A. by Minnesota Mining & Mfg. Co., St. Paul 6, Minn.—also makers of "Scotch" Sound Recording Tape, "Underseal" Rubberized Coating, "Scotchlite" Reflective Sheeting, "Safety-Walk" Non-slip Surfacing, "3M" Abrasives, "3M" Adhesives. General Export: 270 Park Avenue, New York 17, N. Y. In Canada: London, Ont., Can.

Dear Sirs,

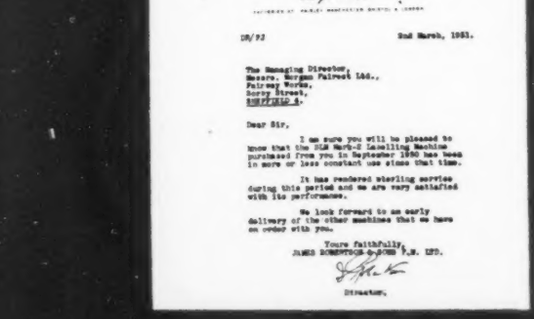
Sehr geehrte Herren

Messieurs

Mijne Heren

Min Herre

Señores


AMSTEL BREWERY

12/Pe AMSTERDAM 19th March 1951

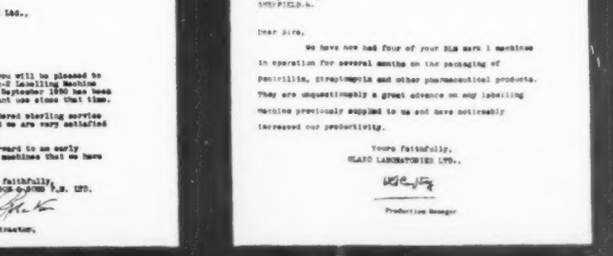
Messrs. Morgan Fairest Ltd.,
Fairway Works,
SHEFFIELD 4.
England

Dear Sirs,

We are in receipt of your letter of the 17th inst. and have pleasure in informing you, that the 5 BLM 1 labelling machines have now been in operation for about a year and that they give us full satisfaction. We use the machines with a speed between 5000 and 6000 bottles per hour and the labelling is perfect. By reason of this experience we ordered your Duplex labeller for front and back labelling, which machine has just arrived.

Meanwhile we are,

Yours faithfully,
AMSTEL BROUWERIJ N.V.


THE DISTILLERS COMPANY
(BIOCHEMICALS) LIMITED

SPEKE
LIVERPOOL 19

March 10th, 19 51.

Morgan Fairest Ltd.,
Fairway Works,
Derby Street,
Sheffield, 4.

Dear Sirs,

With reference to your letter of February 26th, we should like to confirm that we have recently installed one BLM Mark V.S. "Duplex" labelling machines which are now labelling 5 oz. vials containing Penicillin including 'Diplopenicillin' brand preparations of Procaine Penicillin for aqueous suspension.

During the time we have had these machines they have been working most satisfactorily. They have enabled us greatly to increase our output of antibiotics and have admirably fulfilled the high performance required.

Yours Faithfully,
For THE DISTILLERS COMPANY (BIOCHEMICALS) LIMITED.

C. A. ELLIOTT.
Supplies Officer.

MAAKE-BECK BRAUEREI
AKTIENGESELLSCHAFT
BREMEN

Bu/F 22.5.1951

Firma
Morgan Fairest Ltd.
Fairway Works
Sheffield 4
England

Sehr geehrte Herren.

Wir schicken Ihnen Brief vom 15.Mark und teilen Ihnen mit, dass wir noch die zum Etiketten abgegeben haben. Sie können unsere Firma als Besitzerin der Banks Etikettiermaschine aufgeben und sind wir gern bereit, auf befragen Auskunft zu geben. Auch wollen wir Ihnen gestatten, einige Flaschen, mit unseren Etiketts versehen, auf der Ausstellung zu zeigen.

H. & G. SIMONDS, LTD
READING
BREWERS, WINE & SPIRIT MERCHANTS

RB 9/2 RC/EDU. The Brewery, Reading 7th March, 19 51.

Messrs. Morgan Fairest Ltd.,
Fairway Works,
Derby Street,
SHEFFIELD, 4.

Dear Sirs,

Referring to your letter dated 23rd February we have pleasure in enclosing copies of our labels which you may see at the National Packaging Exhibition in America.

We have, as you know, eleven BLM Mark 1 machines in operation at our various bottling stores and these are giving extremely good service and we can say that the Banks Labeller has been largely responsible for the great improvement in the turn-out of our bottled beers.
When we receive delivery of four BLM Mark 2 machines which we have on order we shall have eliminated all other makes of labeller.

We would like to take this opportunity of wishing you good fortune in your efforts to procure a part of the very valuable American trade.

Yours faithfully,
for H.& G. SIMONDS LTD.

E.M. Dornan
Head Brewer/Director.

ence

TIZER LTD.
High Class Table Waters
ATLAS WORKS
HOLLYWOOD AVENUE
NEW MOSTON
MANCHESTER 10

21st October, 1949.

Messrs. Morgan Fairest (1951) Ltd.,
Fairway Works,
Derby Street,
Sheffield, 4.

Dear Sirs,

We have been using a Banks Labelling Machine
for about 6 months and on first thought we will go to our
experience, the fact of our ordering a further 10
machines is a sufficient proof of our confidence in them.

Yours faithfully,
TIZER LIMITED.

F. Parkes

James Robertson & Sons
Preserve Manufacturers Ltd
Golden Shred Works
Watford 324

DR/PJ 2nd March, 1951.

The Managing Director,
Messrs. Morgan Fairest Ltd.,
Fairway Works,
Derby Street,
SHEFFIELD 4.

Dear Sir,

I am sure you will be pleased to know that the BLM Mark-2 Labelling Machine purchased from you in September 1950 has been in more or less constant use since that time.

It has rendered sterling service during this period and we are very satisfied with its performance.

We look forward to an early delivery of the other machines that we have on order with you.

Yours faithfully,
JAMES ROBERTSON & SONS P.M. LTD.

Director.

GLAXO LABORATORIES LTD
GREENFORD
MIDDLESEX

1st March, 1951

Messrs. Morgan Fairest Ltd.,
Fairway Works,
Derby Street,
SHEFFIELD 4.

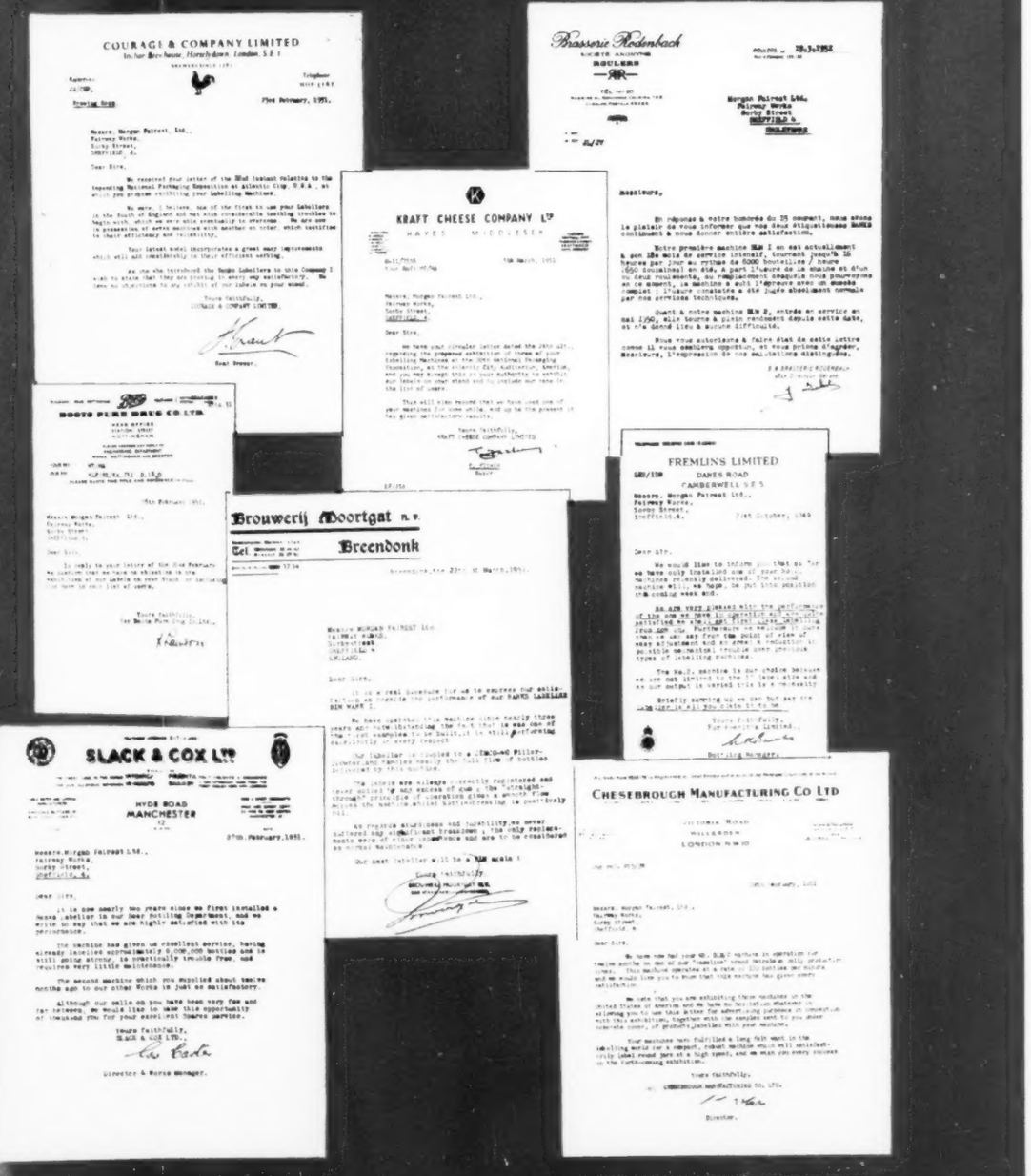
Dear Sirs,

We have now had four of your BLM mark 1 machines in operation for several months on the packaging of Penicillin, Streptomycin and other pharmaceutical products. They are unquestionably a great advance on our labelling machine previously supplied to us and have noticeably increased our productivity.

Yours faithfully,
GLAXO LABORATORIES LTD.,

Production Manager





Over 1,000 " BANKS " Labelling Machines are at work in or on order for the following countries :—

India	Cuba
Australia	New Zealand
Finland	Sweden
Norway	Denmark
Italy	Malta
Portugal	Spain
Trinidad	Germany
Austria	France
Belgium	Holland
Brazil	Ireland
Switzerland	Canada
America	Uraguay
Mexico	Argentine
South Africa	Israel
	Egypt

and in 174 Cities and Towns in GREAT BRITAIN

PRINTED IN ENGLAND

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Mineral Water Manufacturers & Soda Fountain
GLASGOW S.E.

CARIBBEAN DEVELOPMENT COMPANY LTD.

British Canners Ltd

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BRASSERIES LAMOT S.A.

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WILLIAM STONES LIMITED
CANNON BREWERY
SHEFFIELD 3

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BLACKBURN

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LEICESTER

HARRINGTONS
Mineral Water Works
BRIGHTON 7

TAMPLINS
BRIGHTON 7

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Black Eagle Brewery, Maidstone, Kent

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H CONNELL & CO LTD.
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DE POPULIEREN
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LONDON, S.W.8

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Mineral Water Manufacturers
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RUSHELL NOTTINGHAM

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H. P. BULMER & CO. LTD.
CIDER MAKERS HEREFORD

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AERATED WATER MANUFACTURERS
18 BOSAN STREET PAMPER

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Northampton

James Keiller & Son, Ltd.
Marmalade Preservers Fine Confectioners & Confectionery Makers
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JAMES HOLE & CO. LTD.
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THE HOME BREWERY COMPANY LIMITED
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& MINERAL WATER MANUFACTURERS
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TAUNTON

BRITISH VINEGARS LTD.
60 SOUTH LAMBETH ROAD
LONDON S.W.8

A. H. REDFERN LTD.
178 HIGHBURY ROAD BULWELL NOTTS

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and
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Isle of Man

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THE PALATINE BOTTLING Co Ltd
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Holbrooks Ltd.
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BRASSERIE DE HAECHT

HAAS' AZIJNFABRIEKEN N.V.
AZIJNMERKEN "DE DOOR"
HAARLEM

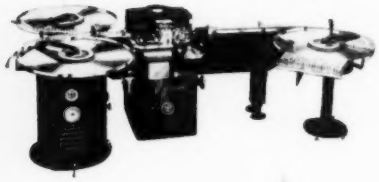
BROUWERIJ MENA ROTSELAAR

CANNING & WILDBLOOD LIMITED
PURITY WORKS
BIRMINGHAM, 8.
FRUIT PRESERVERS.

St Martin
Preserving Co Ltd
MAIDENHEAD

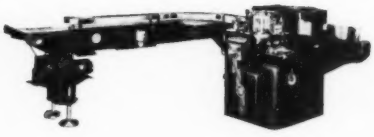
Makers of the Celebrated CHUNKY Marmalade

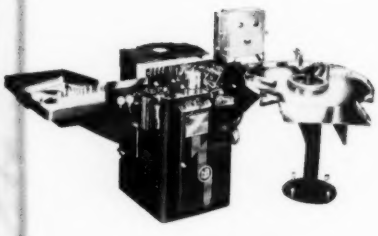
Over **1000 "BANKS" LABELLERS** *are at work in or on order for the following countries*

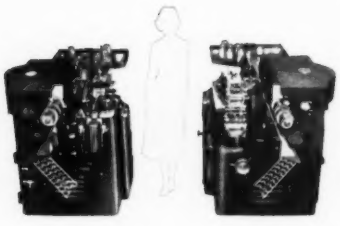


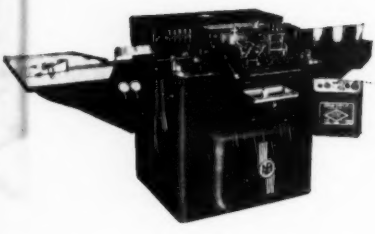


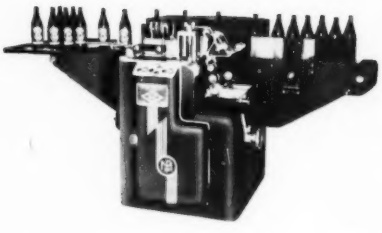












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and in
180 CITIES & TOWNS IN GREAT BRITAIN

Users in many countries have been pleased to write us expressing their appreciation of the design, workmanship and performance of the different models of Banks Labellers. Some of these letters have been printed in leaflet form under the title "Dear Sirs", one of which we are pleased to enclose in this outstanding journal.

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PACKAGING MACHINERY — PAPER BOX MACHINERY

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THE "BANKS" LABELLER



Of Unique Design and Principle. A High Speed Fully Automatic BODY LABELLING MACHINE for Cylindrical Containers, Fitted with Electric "No Bottle — No Label" Device.

Precision labelling from 2,400 — 10,200 units per hour using one label stack only.

The "Banks" Labeller is simple to operate, occupies very little space, and positions the labels positively, accurately, and without any trace of surplus gum beyond the edges of the label, irrespective of the label shape or size.

Change from one size of container to another is obtained in a matter of seconds.

Cleaning down takes only a few minutes.

All models arranged for conveyor feed, or, alternatively, Patented Automatic Infeed Rotary Tables. The machine illustrated is fitted with Patented Automatic Infeed Rotary Table and is labelling penicillin vials.

Manufactured in 6 models suitable for use in breweries, mineral water, food, cosmetic and chemical factories, and the like.

Each model will label all round or part up to the label width capacity of the machine, from ½" up to 12" wide.

MODEL B. L. M. 3 } will fix back
MODEL B. L. M. D. } and front labels

Over 1,000 machines are at work in or on order for THIRTY Countries and 174 Towns and Cities in Great Britain.

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Please send me a sketch on ☐ GOLD ☐ SILVER foil approx. size.....with the following copy

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Manufacturers of Fine Paper Boxes

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Two new plants to serve you...



South San Francisco, California—Now In Production



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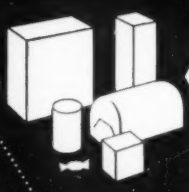
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NEWARK PACKAGING SELLS YOUR PRODUCT PROTECTS YOUR PRODUCT . . . PROMOTES GOOD WILL

Whether your needs are large or small . . . our half century of know-how . . . our research department . . . our art and engineering staffs . . . are at your service to help solve your packaging problems . . . without obligation.

QUALITY Integrated production—our own paper mill gives Quality Control at the source, which guarantees Uniformity.

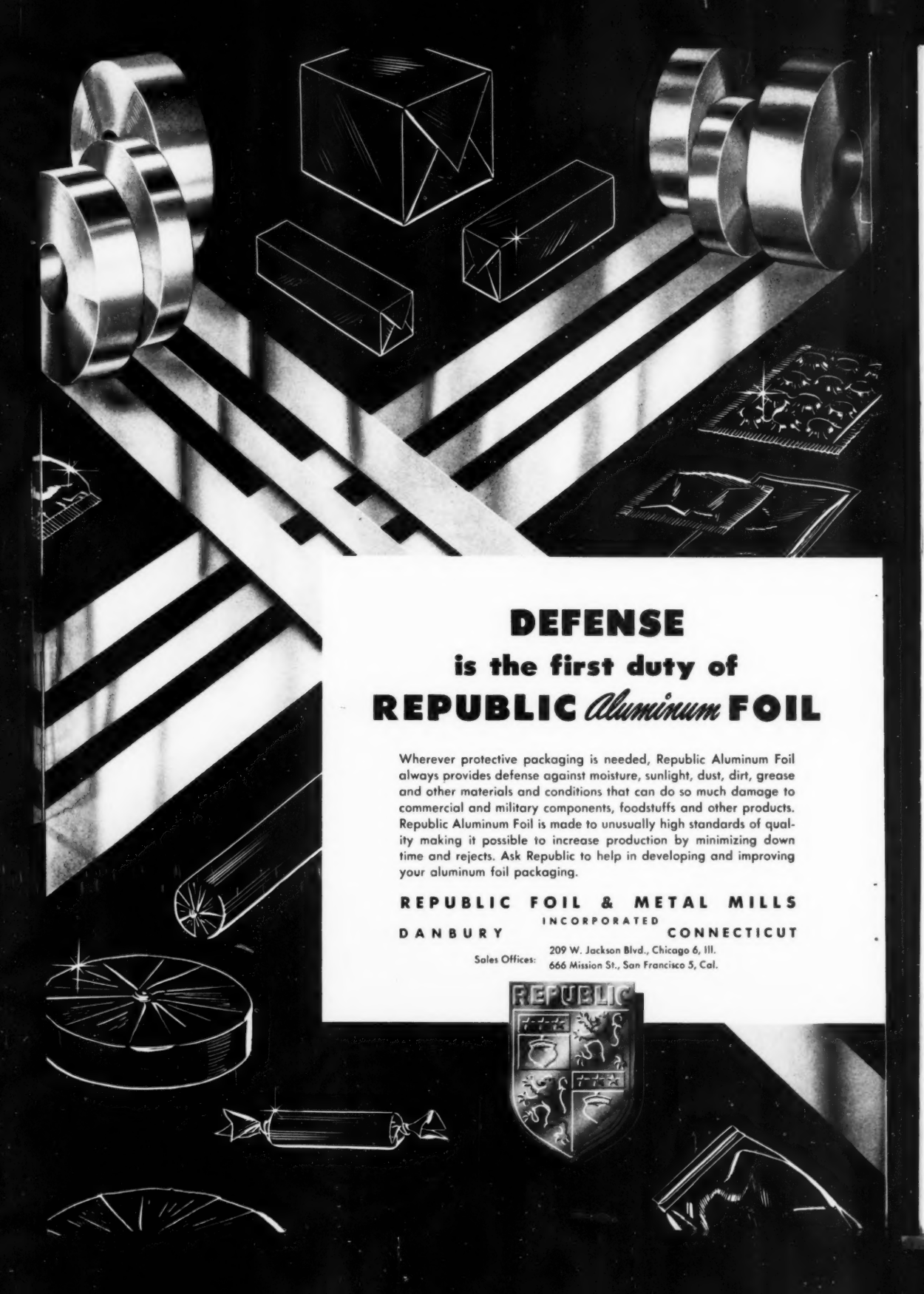
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Wherever protective packaging is needed, Republic Aluminum Foil always provides defense against moisture, sunlight, dust, dirt, grease and other materials and conditions that can do so much damage to commercial and military components, foodstuffs and other products. Republic Aluminum Foil is made to unusually high standards of quality making it possible to increase production by minimizing down time and rejects. Ask Republic to help in developing and improving your aluminum foil packaging.

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Once again...a short step to the right container



Whatever your packaging problem, a visit to the United States Envelope Company's exhibit of Flexible Containers for Packaging is a "must" on your calling list at the National Packaging Exposition, Atlantic City Auditorium, April 1-4.

Here you'll find complete and practical answers to all questions of protective packaging with films, foils and other flexible materials.

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21ST NATIONAL PACKAGING EXPOSITION
ATLANTIC CITY • April 1-4 1952

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Flexible Containers for Packaging

HIGH STYLE


RUSSO'S
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SET-UP BOXES

send your product to market in an advance-styled Ritchie package and your own sales figures will prove it: high style is *buy* style!

IS BUY STYLE



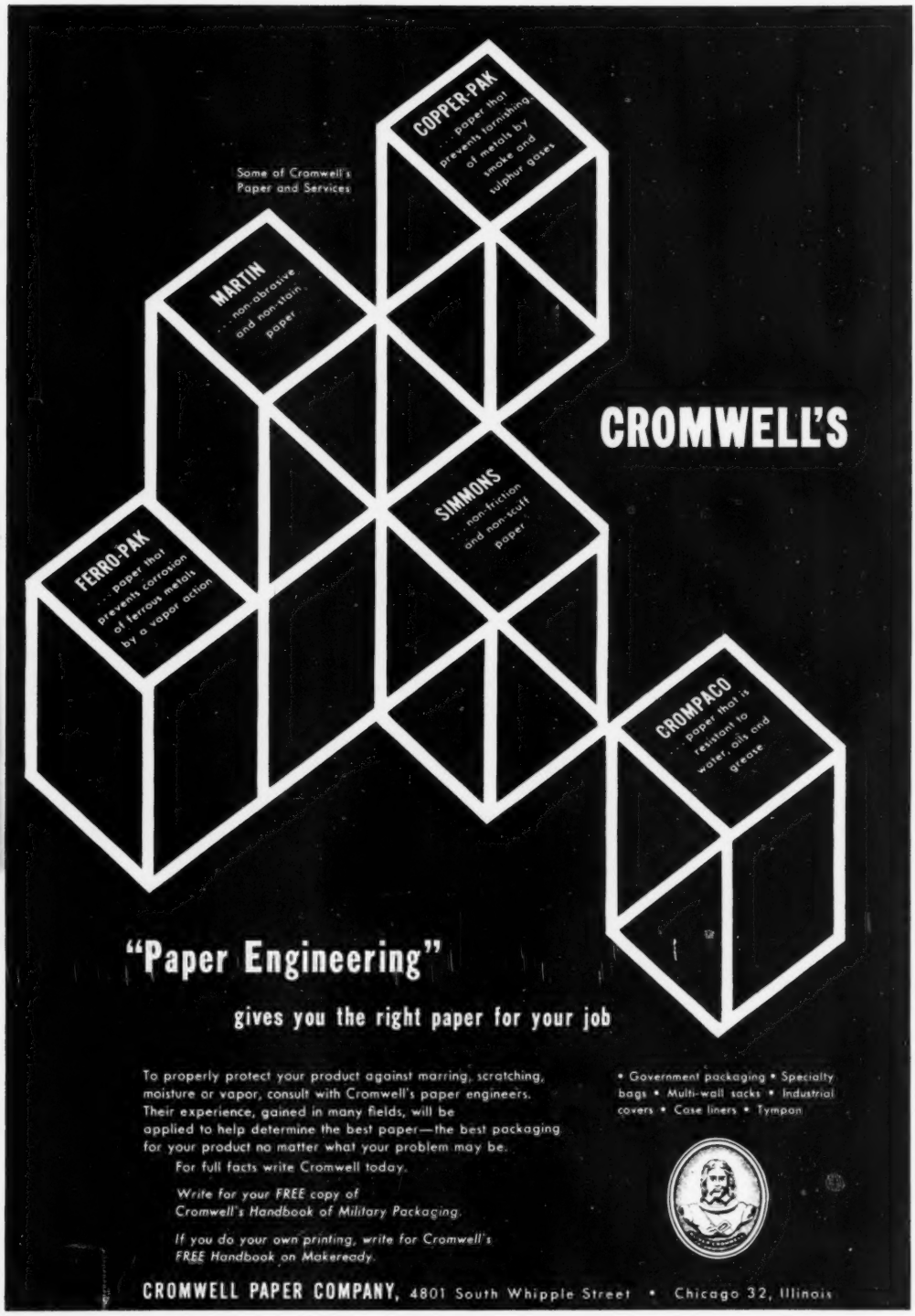
You don't have to sacrifice a thing (not even economy) to achieve high style—*Ritchie style*—in your packaging. Our design department will help put your packages in the fashion forefront, yes—but they'll make them so they're *practical*, too. So they pack and stack and protect what's in them. *And so their cost is right.*

Got a packaging problem? refer it to Ritchie!

. . . and now Ritchie is high styling folding cartons

Yes, it's a new service at Ritchie—a special department to design folding cartons . . . up-to-the-minute facilities to manufacture them. For further information on this or any other Ritchie service, write today for the free booklet, "101 Ways to Get Better Packaging."

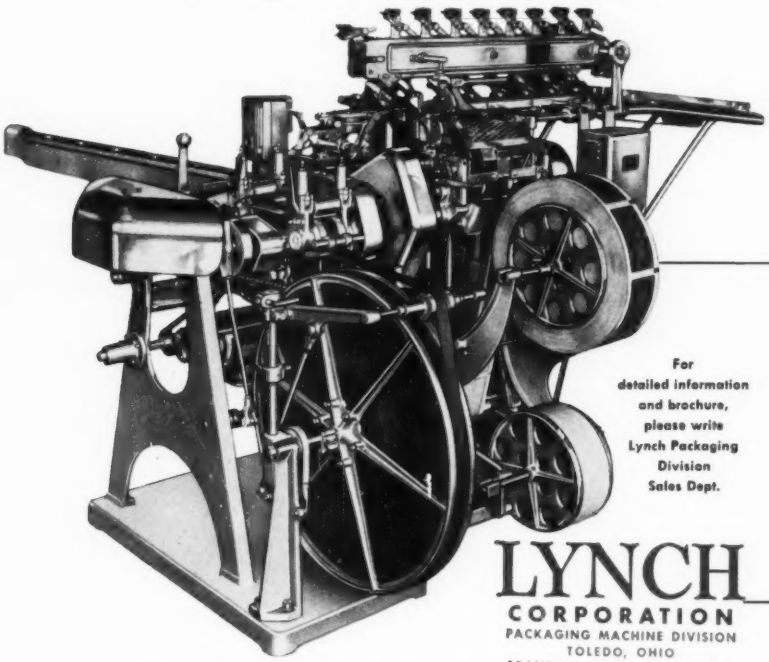
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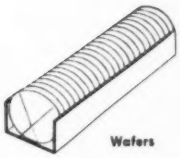

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"Paper Engineering"
gives you the right paper for your job
To properly protect your product against marring, scratching, moisture or vapor, consult with Cromwell's paper engineers. Their experience, gained in many fields, will be applied to help determine the best paper—the best packaging for your product no matter what your problem may be.
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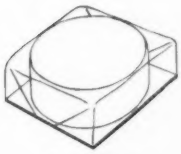
MODEL RA (or PB) IS YOUR WRAPPING ANSWER!

For - candy bars... multiple pack bars...
caramels...wafers...mounds...clusters...cups;
Also many items in other fields.
Featuring : Boat or card or no card wrap.

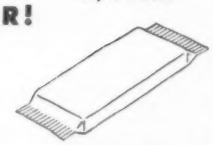




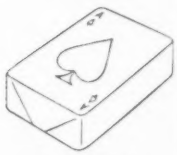
Wafers



Cup or Mound



Crimped End Bar



Playing Cards



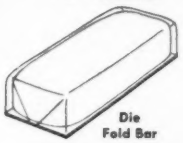
Cigar Pack



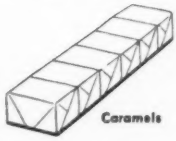
Cake Ornaments



Two Piece Bar



Die Fold Bar



Caramels

For detailed information and brochure, please write Lynch Packaging Division Sales Dept.

LYNCH CORPORATION
PACKAGING MACHINE DIVISION
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LYNCH PACKAGING MACHINES WILL BE DISPLAYED IN BOOTHS 560-564, 661-665, AT THE PACKAGING EXPOSITION, ATLANTIC CITY, APRIL 1-4

Most Pressure Products are Packed in



CROWN SPRA-TAINER

The Original and Leading Light Weight Propulsion Can

NO-SIDE-SEAM
NO-TOP-SEAM



Products that s-p-r-a-y from *Spra-tainer* lead the way in today's race for sales. The public clamors for this "Modern Design." Old-style products are fast changing over. New propulsion products by the score are being sped to market.

Pressure Packaging on a widespread scale was first made possible by Crown's invention of *Spra-tainer* — the original light weight propulsion can . . . and still the leader.

Spra-tainer is preferred because of its exclusive "No Side Seam, No Top Seam" construction. *Spra-tainer* is demanded because its "Modern Design" has the eye-appeal that s-e-l-l-s your product.

The same advanced vision and skill which developed *Spra-tainer* are evident in all cans of Crown design and manufacture for every purpose. Consult this Complete Line of Cans as your surest guide of all to Progressive Packaging. YOU CAN'T BUY BETTER CANS!

CROWN CAN

Division of

CROWN CORK & SEAL COMPANY

One of America's Largest Can Manufacturers

Plants at Philadelphia, Chicago, Orlando
Branch Offices: New York, Baltimore, Pittsburgh, St. Louis


UNIVERSAL FILLER
AUTOMATIC "STOKESWRAP" PACKAGING MACHINE
"BANKS" LABELER
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AUTOMATIC "STOKESFEED" PAPER BOX MACHINE
DUPLEX PACKER & WEIGHER
AUTOMATIC "STRETCHWRAP" PACKAGING MACHINE
BAG AND ENVELOPE SEALER
"REVERSTOP" CARTON FILLER AND SEALER
...FOR
Modern Packaging
. . . congratulations on your Silver Anniversary.
Editorially, your contributions to the packaging field have been inspirational, and have helped to advance packaging methods and materials.
Since your first issue 25 years ago, in which Stokes & Smith advertised, we have been a consistent advertiser . . . as designer-manufacturer of more productive and efficient packaging machinery. In every field—foods, drugs, chemicals, cosmetics, tobacco, candies—Stokes & Smith offer the most complete line of packaging equipment. Details are available upon request.
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FRANKFORD · PHILADELPHIA 24 · PA.
Exclusive West Coast Distributor
SIMPLEX PACKAGING MACHINERY, INC.
(subsidiary of FMC)
534 23rd Avenue ● Oakland 6, California

New Packette!

The Marathon Packette! It's new! It's a sales maker! It's an important addition to the famous line of Marathon's original Linerless Ice Cream Cartons. Retailers like this single portion linerless! It has terrific mass display value. Shoppers stop and select the flavors in any combination they desire. Try a jumbled display and watch sales zoom. Just like the big selling Pint Linerless, the Packette has side opening flap . . . when opened the ice cream stays intact, all ready to serve.



Engineered for production and sales

Marathon's line-of-three Linerless Ice Cream Cartons consists of half-gallon, pint and individual serving size. All are engineered for automatic or semi-automatic set-up and filling. Linerless Cartons fold flat and store flat to save space. Marathon Linerless Cartons, beautifully printed in 2, 3, or 4 colors, attract consumer attention, boost sales. If you want to increase ice cream volume, see your Marathon salesman or write Marathon Corporation, Menasha, Wisconsin.

Packs Sales Punch!

Marathon

packaging that sells food

Visit Marathon's Exhibit, booth 561
National Packaging Exposition
Atlantic City, N. J., April 1-4

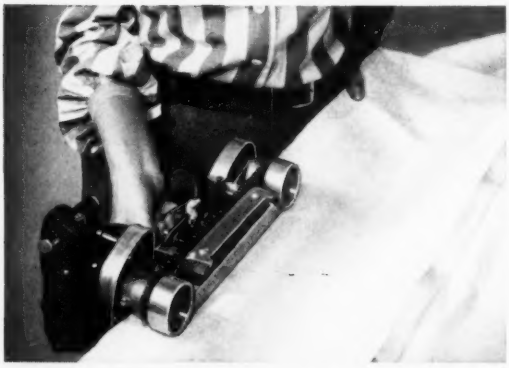
Name your heat sealing needs— DOUGHBOY has the answer!



"High-speed production is my problem"



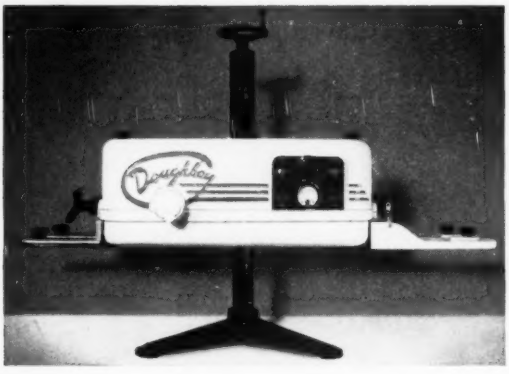
DOUGHBOY'S NEW "AT" ROTARY HEAT SEALER offers quantity output on materials ranging from heavy laminates (required to meet current rigid MILITARY and NAVAL packaging specifications) to such lighter materials as cellophane, glassine and wax type bags. "AT" Sealers are available with compression section, code-dater and hole punch device; with pre-heaters up to 36 inches in length; and with bag folding unit. The tilting device permits quick adaptation of the new sealers for pre-fabricating bags or barriers.



"I work with bulky materials"



THE NEW DOUGHBOY POWER HAND SEALER (motor driven) is the ideal unit for closing cotton or "scrim back" floating or carton barriers, and for heat sealing polyethylene (polythene) or vinyl to kraft laminates and similar materials that conform to ARMY-NAVY packaging requirements. Light weight (only six pounds, 12 ounces) permits efficient manual operation. Use of the rotary sealing principle with controlled power drive assures a continuously positive seal. With mounting bracket, the Power Hand Sealer may also be used as a bench model.



"My plant has varied output"



THE DOUGHBOY CONTINUOUS BAND SEALER heat seals a wide range of plastic films including polyethylene (polythene), vinyls, pliofilm, saran and similar materials. This sealer is widely used in fabricating case and drum liners as well as smaller dimension bags from pre-cut tubing. It is especially recommended for heat sealing unsupported polyethylene (polythene) bags that are now required under various MILITARY packaging specifications.

Write today for detailed information on these machines. We will also be glad to have our experienced engineers work with you on any heat sealing problem you may have. Address Dept. MP32

DOUGHBOY INDUSTRIES, INC.
New Richmond, Wisconsin

VISIT OUR BOOTH NO. 645, NATIONAL PACKAGING EXPOSITION, ATLANTIC CITY, APRIL 1-9



Tremendous Trifles... **LOOK BEST • MOVE FASTER PACKAGED IN CLEARSITE PLASTIC CONTAINERS THAT SELL!**

Clearsite ...is foresight

CELLUPLASTIC *Corporation*

General Offices: 52 Avenue L, Newark 5, N. J.

See Us At Booth 835
National Packaging Exposition, Atlantic City, New Jersey

Nashua Waxed Paper Gives You *100 cents for your Packaging Dollar!*



Brand sales step forward when the product protection qualities of Nashua waxed paper obtain the PLUS of Nashua's sharp, clear printing in multi-colors by rotogravure, aniline and letterpress. Nashua Self Sealing Waxed Paper is made by the most modern scientific process. Coatings of fully refined paraffin wax mixed with other ingredients in precise quantities produce *positive self sealing* with HARD SURFACE AND HIGH GLOSS. Result: packaging that catches the eye and invites the *sale* — product protection that insures the *resale!*

QUICK FACTS

- Prevents absorption of moisture which causes contamination by mold and bacteria.
- Prevents loss of moisture to confectionery and other products — prevents crystallization of sugar and salt.
- Prevents outside air from passing in or out of package — retaining product aroma, flavor and freshness.
- Prevents insect infestation.

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NASHUA GUMMED AND COATED PAPER COMPANY
NASHUA, NEW HAMPSHIRE

NASHUA
MAKES PAPER MAKE MONEY FOR YOU

SILVER ANNIVERSARY 1927-1952

A special section reviewing twenty-five years of progress in modern packaging

as reflected in the first 25 years of

Modern packaging

Our first quarter-century

25 ANNIVERSARY 1927-52

The measure of MODERN PACKAGING is the measure of progress in the field it first recognized and embraced

In 1927 the last of the Model T Fords came off the assembly lines at River Rouge. A man named Lindbergh became the first human being to fly non-stop across the Atlantic. Commercial radio broadcasting was in its infancy; the National Broadcasting Co. network consisted of three stations and television was a dream of the future (although it was in that year that the plump face of Secretary of Commerce Herbert Hoover came over a wire from Washington and was waveringly reproduced on a 2-in. screen in the A. T. & T. laboratories in New York). Babe Ruth signed with the Yankees for $70,000 a year.

It was the era of Jimmy Walker, bathtub gin, John Held flappers, coonskin coats, Stutz Bearcats and "Peaches" Browning. In the headlines were the execution of Sacco and Vanzetti, the Ruth Snyder-Judd Gray murder case and the Nicaragua intervention. Income taxes in 1927 were only for the very rich; the Federal budget was under $5 billion and frugal Calvin Coolidge, who had just announced that he did not choose to run again, clipped eight square inches off the size of the dollar bill.

Among those who worried more about dollar bills than income taxes in that hot summer of 1927 were two young men named Charles A. Breskin and D. E. A. Charlton, who had pooled their earnings from trade papers and declared that they were going to publish a new magazine called MODERN PACKAGING.

While Ted Charlton, the editor, toiled in a 9-by-12 office in the old Pulitzer Building down on New York's Park Row, Charlie Breskin—president and publisher—was out beating the pavements, carrying to prospective advertisers his vision of a publication which would for the first time unite the common interests of all packagers of consumer merchandise and provide a single marketplace for the billions of dollars' worth of materials, services and equipment that packagers used.

It was a radical idea that Charlie Breskin had to sell. Surprising as it is to look back on now, nobody up to then had ever thought of packaging as a distinct *field*—a common band of activity cutting horizontally across 40 or 50 separate industries. Although modern principles of protection and sales appeal were to be found in such pioneers as the Uneeda Biscuit and Lifebuoy packages, most packagers were unaware of the full potentialities of their packages—they tended to look upon the packaging operation as a necessary nuisance rather than an opportunity. The packaging machinery manufacturers and the suppliers of boxboard and paperboard, tinplate, glass, paper and other materials were selling piecemeal to a market whose shape and size were unknown.

With eloquence and persistance, Breskin made some of these people see, as he saw, the need for a coordinating force to tie together these diverse efforts, turn them into a single path and give direction to the power of packaging.

The first issue of MODERN PACKAGING, in September, 1927, contained the advertising messages of 22 hardy pioneers. Including editorial material, it consisted, in all, of 52 pages and two advertising inserts. It was sent, gratis, to a mailing list of about 3,000 names, scraped together from customer and prospect lists supplied by advertisers.

As this 295th issue goes to press, MODERN PACKAGING has 14,000 readers who pay $5 annually for the privilege, and total world-wide distribution is above 20,000. The list of advertisers has swollen to 316 (including 11 who have appeared

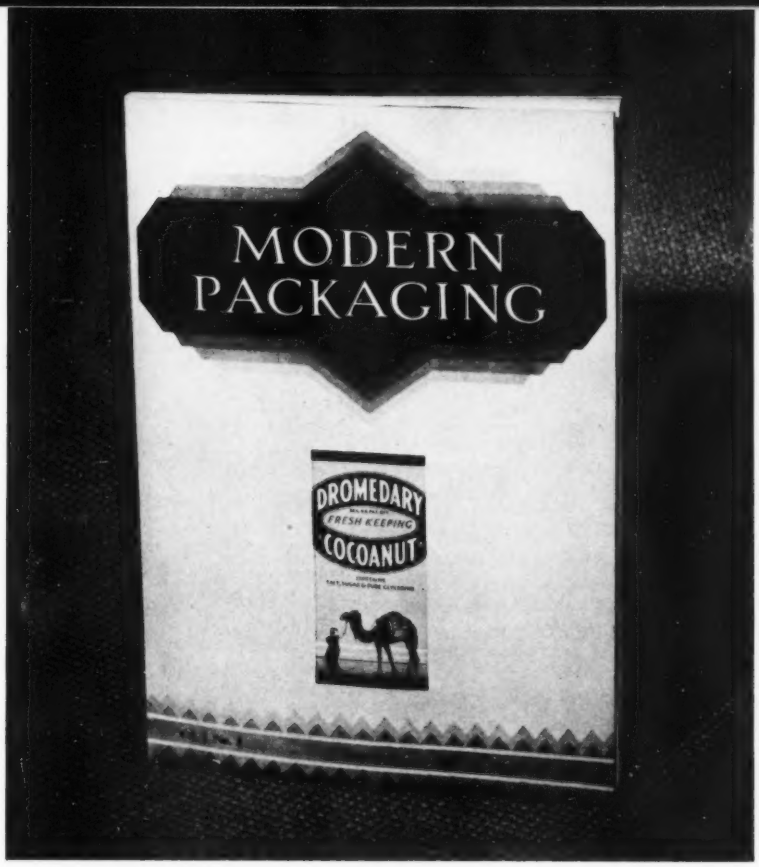
THE FOUNDERS



CHARLES A. BRESKIN, co-president and publisher of MODERN PACKAGING, who is still at the helm.



D. E. A. CHARLTON, co-founder and first editor of the magazine, who retired and died in 1941.



THE FIRST ISSUE, in September, 1927, was a slim promise of things to come. But it charted the course for editorial policy and in typography and design set a standard that influenced packaging for years to come. The first cover was designed by the late Arthur S. Allen. There were 52 pages, 22 advertisers.

every year from the beginning) and this issue bulks to a record total of 460 pages (including cover and non-folioed inserts)—one of the largest issues ever published by any monthly business magazine.

Between those two milestones lies the history not only of MODERN PACKAGING, but of modern packaging. For the dream that Breskin and Charlton had has come true. The evolution of the modern concept of packaging as a merchandising force and the quarter of a century of progress in materials, packages, machinery and methods are traced in subsequent articles in this Silver Anniversary Section. It is the purpose here to show what part the magazine has played in this development.

A new publishing concept

Feeble as it was, Vol. 1, No. 1, of MODERN PACKAGING established certain basic policies from which the magazine has never deviated. And it exhibited the feeling for good design and the flair for showmanship which through the years have helped by precept to put life and color into packaging.

In failing health, Charlton sold his interest in the magazine to Breskin at the end of 1937 and retired to Canada, where he died in 1941. But in his 10 years at the editorial helm of MODERN PACKAGING, the brilliant Charlton left an indelible mark. He had a crusading influence on good, functional design and sound merchandising.

The early road was not easy and it must often have been a great temptation to the young publishers to grab easy advertising money by dropping their editorial standards to the level then generally expected of business magazines. But from the beginning both men were determined that this should be a magazine that would have as its No. 1 objective the respect and confidence of its readers. That meant a rigid policy of "no puffs"—every line of editorial matter to be judged solely on its value to the reader. Accordingly, the first issue—like all the subsequent 294—con-



THE FIRST ARTICLE in the first issue was a searching study of the design and production of Dromedary Cocoanut. Facing it was the first ad of J. L. Ferguson.

tained no handouts masquerading as feature articles, but thoughtful, specially prepared articles by the editor and by authorities in the field.

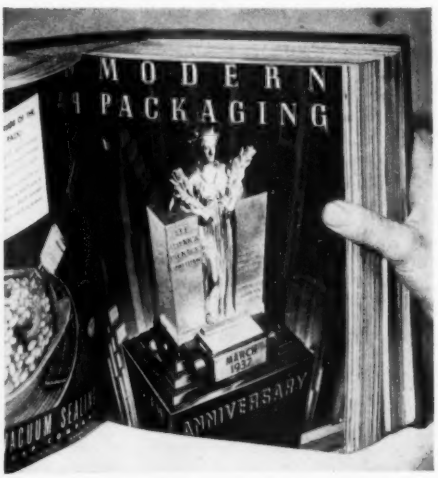
Then, as now, the names and trade names of suppliers were barred from the body of an article and confined to a "credits" listing at the end. This drastic rule was considered by Breskin and Charlton to be the one sure way to keep editorial material objective and free of any suspicion of advertising influence. It proved to be more than that; it became an actual boon to both readers and advertisers in making sources-of-supply information easier to dig out.

Then, as now, feature articles were approached always from the viewpoint of the packager—not the supplier—and were based always on actualities, not hopes. This policy had several virtues: it bolstered editorial integrity, it automatically ruled out the "good ideas" that couldn't or didn't pan out and it assured the reader that the magazine was published in his interests.

Then, as now, it was the firm policy of the magazine to distribute editorial coverage so that it represented fairly all phases of the packaging activity—regardless of the sources of advertising support. This policy of regarding the packaging field as an integrated *whole*, rather than treating it in bits and pieces, was a brand new idea at the time and its influence is reflected in the general acceptance of packaging integration today—in company packaging organizations, in the all-embracing associations such as the A.M.A. and the Packaging Institute.

Issue No. 1 contained a lead article by the editor which was tied to the cover illustration of the then-new Dromedary Cocoanut package. It was perfectly typical of the type of analytical article which still makes up the bulk of MODERN PACKAGING's editorial content. It critically examined not only the why and how of the new package, but also the entire packaging operation at the Hills Bros. plant, pointing out features that should be considered by other packagers.

Rounding out the coverage in the first issue, there was an article by F. E. Huhn on the benefits of standardization of package sizes. Artistic design was treated by Dr. Hans Piorkowski, a leading European designer, who pointed out some excellent examples on the Continent, from whence most inspiration for our design was coming at that time—a reverse of the situation that exists today. There was an article by Carl E. Schaeffer of Stokes & Smith on economical relation of the package to the machine. Harrison Elliott of the Japan Paper Co. wrote on "Fancy Papers and the Art of the Package"; Alden French of the Package Machinery Co., on "The Development of Automatic Wrapping"; F. J. Byrne of Du Pont, on "Color Trends in Packaging"; J. D. McCarthy of American Machine & Foundry Co., on bread wrapping and Edward O. Tinsley of the Robert Gair Co., on display containers. Another article reported a survey by the A. C. Nielsen Co. comparing actual costs of hand vs. machine



FIFTEEN YEARS AGO, on its 10th anniversary, MODERN PACKAGING looked like this. Cover of this 318-page issue shows trophies given All-America winners that year.

THE FAITHFUL whose advertising first supported the new publishing venture are identified in reproductions of their ads from the first issue. The 10 on the opposite page, plus the J. L. Ferguson Co. (see photo at top left of this page), have run continuously now for 25 years. Robert Gaylord, Inc., is now Gaylord Container Corp.; National Gum & Mica is now National Starch and National Packaging Machinery Co. has been absorbed by today's U. S. Automatic Box Machinery Co.

CHARTER ADVERTISERS...AND STILL WITH US





THE FIRST OFFICE of MODERN PACKAGING was barely large enough to contain this roll-top desk for Publisher Breskin and another for his partner, Editor Charlton.



THE FIRST BUILDING to house the magazine was the old Pulitzer Bldg. at 63 Park Row in New York City.

operations in a typical packaging process. Then, as now, there was a Materials & Equipment department in which suppliers' announcements of new products were presented on a basis of their newness and interest to packagers.

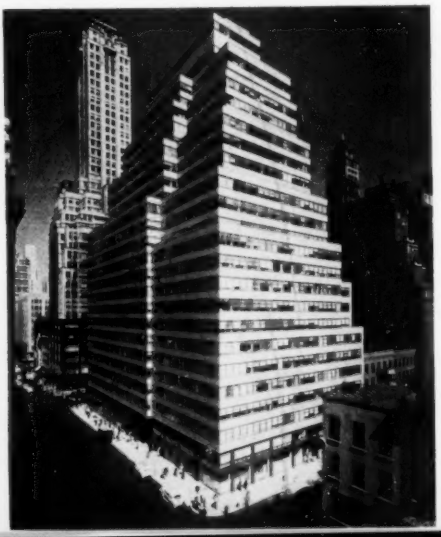
Finally, it should be pointed out that, then as now, the publishers of MODERN PACKAGING insisted on the finest of artwork, engraving, paper stock, typography and printing—feeling that it was up to them to teach good graphic arts by example.

The first cover was designed by the late Arthur S. Allen, dean of America's package designers, whose influence on packaging was felt for more than 30 years, and it was printed in four colors—something unheard of at that time in the business-magazine field. The cover design, employing the fine gradation of color tones which was Arthur Allen's specialty, was used for several years and was itself credited with starting a new trend in package design.

The first issue also contained the first examples of what was then a startling innovation in publishing—the use of actual samples of materials bound in or tipped onto advertising pages. There was a sample of a fancy foil-laminated and printed box covering paper by Walther & Co. (which unfortunately got bound in so that the advertising message on the reverse side was upside down!), and a four-page folder from James H. Jones, manufacturer of box-makers' machinery.

The insertion of samples was a hand operation at the printing plant and it proved expensive in other ways, too. The Postoffice Department staggered the young publishers by ruling that samples were samples, and if they wanted to include them in their magazine they would have to pay the sample rate and forego the low-cost mailing privileges applying to other magazines. The publishers swallowed hard and paid up. They have been paying now for years. They saw sampling as a feature that would give their magazine life and color and increased usefulness, and make it talked about. They were right. The idea has been copied by some of the most expensive luxury magazines, including *American Fabrics* and the recent $2-a-copy *Gentry*.

HEADQUARTERS of MODERN PACKAGING now are in this new air-conditioned office building at 575 Madison Avenue, New York, occupying most of the third floor.



Would it live?

When they saw the ambitious scale of this publishing venture, even its most enthusiastic supporters expressed doubt that it could survive

profitably. Others commented that the first issue was fine—but how could the editor possibly find enough new material on packaging to fill 12 issues a year?

Breskin and Charlton never had any doubts about the editorial material, which they saw as an untapped and unlimited field, but there were many times in the early years when they wondered whether income would ever balance outgo. Nevertheless, they stoutly refused to cheapen the magazine in any respect. They were going to sink or swim on the standards set.

Their faith was rewarded. In the second issue the 22 advertisers became 26; one advertiser used a six-page insert and two fancy-paper houses sampled their wares. By January, 1928, the original advertisers' list had nearly doubled, to 43, and there were a half-dozen elaborate sampling inserts. By this time editorial material was developing at such a rate that a consulting Editorial Board was appointed, consisting of Designer Arthur S. Allen; C. H. Gullion, industrial engineer with Swift & Co.; Richard B. Franken, lecturer on advertising and marketing at New York University; Frank C. Chase, superintendent of E. R. Squibb & Sons, and Edward O. Tinsley, designer, and J. D. Malcolmson, package research engineer, both of the Robert Gair Co.

It was apparent that the field had adopted MODERN PACKAGING and taken it to its heart. The immediate readership acclaim and the flow of unsolicited subscriptions surprised even the confident publishers. But it was still a long pull before advertising revenue would balance the cost of producing the book.

Because the publishers persistently plowed back into expansion and improvement every dollar they could get their hands on, it is difficult to say just where this point was reached. But by May, 1928—nine months after the start—the magazine's physical volume had expanded by exactly 50% and the list of advertisers was up to 62. It was apparent that MODERN PACKAGING was here to stay.

It is appropriate to set down at this point, as a sort of roll of honor, the 22 brave companies who



RECEPTION ROOM of MODERN PACKAGING'S offices of today.



PUBLISHER'S OFFICE is a far cry from the roll-top desk.



GENERAL MANAGER Cole presides in this comfortable suite.

ART DEPARTMENT, looking into the Art Director's office.



LIBRARY and conference room are open to visitors.



made possible Vol. 1, No. 1, by signing up for advertising before they knew what the rate would be or the extent of distribution they could expect. They are:

Arthur S. Allen (now deceased)
The Arabol Mfg. Co.
H. R. Bliss Co., Inc.
Burt Machine Co.
Consumers Glue Co.
Everhot Mfg. Co.
J. L. Ferguson Co.
Robert Gaylord, Inc. (now Gaylord Container Corp.)
Interstate Corrugated Box Co.
James H. Jones
Kimberly-Clark Co.
Latham Machinery Co.
Thos. Leyland & Co., Inc.
National Gum & Mica Co. (now National Starch)
National Packaging Machinery Co. (now U.S. Automatic Box Machinery Co., Inc.)
Package Machinery Co.
Peters Machinery Co.
Pneumatic Scale Corp.
F. B. Redington Co.
F. J. Sevigne Machine Co.
Stokes & Smith Co.
Walther & Co.

The 11 companies that have continued to appear as advertisers in every one of our 25 years are Arabol, Ferguson, Gaylord, Kimberly-Clark, National Starch, U. S. Automatic Box, Package Machinery, Peters Machinery, Pneumatic Scale, Redington and Stokes & Smith.

Advertisers soon learned that this was a paper that meant business—good business. And readers found that they could depend on information in the magazine to be both accurate and pertinent.

There was another high principle that was fundamental to the Breskin-Charlton approach. Many business and trade magazines are content to go along with what they call "controlled circulation," which means that it is primarily *free distribution,* controlled to go wherever the publisher wants it to go—regardless of whether the recipient wants to read the magazine or not. Without paid subscriptions, a magazine has no real responsibility to readers. Breskin and Charlton believed firmly that advertisers who liked this kind of treatment were only deluding themselves—what really mattered was the number of copies actually *desired* and *read* and that the only way to make sure that the magazine would be desired and read was (1) to maintain an independent editorial policy and (2) to charge the reader good money for the magazine and to cut him off if he failed promptly to renew.

Accordingly, the original free-circulation list was converted as rapidly as possible to paid subscriptions and the original subscription price of $2 a year went up quickly to the present $5.

Of course, the income from subscriptions is trivial to that obtained from advertising. It's the principle that's important. And for years MODERN PACKAGING has enjoyed a paid renewal rate of between 75 and 80%, which is considered phenomenal for any business magazine.

In 1936 MODERN PACKAGING achieved its goal by entering the sacrosanct company of publications whose circulations are primarily paid and are strictly accounted for by the Audit Bureau of Circulations. Although competitive publications have come and gone in recent years, as the packaging field has grown, it is worth noting that none of the others ever has achieved a paid-circulation policy, with the responsibilities which that implies.

At MODERN PACKAGING, from the beginning, advertisers might suggest; they would be listened to courteously. But no one was allowed to forget that the editor was in charge of the editorial section of the magazine. Anything that was newsworthy was published. But even threats failed to get items included that were thought to be of less importance to the readers than to the manufacturer suggesting their inclusion.

The success story of MODERN PACKAGING was the subject of a book, "A Portrait of Packaging," by Arthur J. West, published in 1940 by the National Publishing Co., Philadelphia, in which the author remarked on the part that this magazine played, first, in creating a packaging field and, second, in raising its standards.

"MODERN PACKAGING's opinions," Mr. West said, "were respected because they were carefully thought through before they were expressed. The



TWO COVER SERIES of wide renown were started with these two issues. January, 1947, was the first of a series of hypothetical design studies illustrating styles of 24 leading designers. January, 1949, marked start of *Packaging's Hall of Fame,* which is still continuing.

paper inveighed against the obvious evils of packaging. Sloppy design was one. Lack of standardization of package sizes and the haphazard relationship amongst diverse but related package parts—such as the tube, closure, carton, case relationship—were others. Consumer labeling—now demanded by law in certain fields—was one of the things on the editorial agenda."

Mr. West might have noted also that, once America had been made package-design conscious, MODERN PACKAGING turned its attention more and more toward the production and technical phases. Technical articles had been a part of the balanced coverage from the beginning, but around 1940 the magazine started the practice of designating one issue each year as a "technical issue" and early in 1943 it launched its Technical Section as a part of each issue—a place where the works of the rapidly developing packaging laboratories could be recorded on a scientific level.

Mr. West summed it up pretty well when he called his book "the story of how men of vision saw the needs of *packagers,* a group which had never before been classified together, and how they answered that need.

"Packagers were everywhere, yet people—consumers and packagers alike—were almost as unconscious of packaging as they were of breathing. How men were made conscious of the potential force of this weapon for cleanliness, accuracy, standardization and sales makes one of the most dramatic business stories ever told."

Growth

The magazine was less than a year old, and still none too husky, when the publishers started looking around for other fields of service. They decided that, in addition to a monthly publication to bring up the new things as they came along, the sprawling field of packaging needed one central reference source—a sort of catalog—for basic information on packaging methods and machinery and sources of supply.

That resulted in the *Packaging Catalog,* the first, 1929, edition of which appeared late in 1928. The first edition was, in format, a handsome hint of the long line of successors to come, but the compiling of basic information was a gargantuan task that had to build up slowly through the years. The first edition had 57 pages of articles, written by outside experts, packed with facts and figures, from "Adhesives" to "Wooden Boxes." There were 92 pages of informative catalog advertising by 70 supplier firms; this information, more instructive than promotional in nature, was of equal value with editorial matter in guiding packagers toward intelligent purchasing. Both sections were topped off with the first Buyers' Guide to packaging supplies and the whole was richly bound between embossed covers.



LONG REMEMBERED climax of each annual All-America Competition, which MODERN PACKAGING conducted for years, was the dinner party at which the winners received their trophies. The two scenes above are from the last 1941 dinner at the Hotel Stevens, Chicago. Elaborate tableaux made these events memorable and helped win world-wide publicity for packaging. Previous year, a two-horse farm wagon was driven into the Waldorf-Astoria.

The growth of the *Packaging Catalog,* through successive, annual, revised editions and its change of name in 1946 to the more descriptive *Modern Packaging Encyclopedia* is a story in itself, which we will not attempt to cover here, although the annual volume has worked hand in hand with its sister magazine in the uplifting of packaging. Suffice to say that by 1948 the *Modern Packaging Encyclopedia* had grown to over 1,200 pages, weighing over 10 lbs. and is today considered an indispensable handbook in every packaging shop and office.

Naturally, the growth of the publications described here required rapid expansion of staff and business personnel, as well as physical plant. One



9TH ALL-AMERICA in 1939 required the rental of an entire floor of the Chanin Building in New York for display of the 30,000 packages entered. Public was invited to tour the exhibit after judges finished work.



JUDGING All-America entries was a gigantic job. In this 1942 photo are shown (left to right) Publisher Breskin and Judges Thomas R. Baxter of Standard Brands; the late Ben Nash, package designer; C. A. Southwick, Jr. (now Technical Editor of MODERN PACKAGING); Dr. Howard T. Hovde of the University of Pennsylvania and Barbara Daly Anderson of the *Parents* Magazine staff.



PUBLIC DISPLAY of All-America winners in many cities helped build consumer awareness of good packaging and its significance. The display of 1937 winners is typical.

of the most important steps since the beginning occurred in connection with the opening of a Chicago branch office in 1932.

Mr. Breskin remembered a young space salesman named Alan S. Cole from a chance meeting on a train several years back. At the time, he had been so impressed with Cole's personality and selling ability that he had invited him to join his organization whenever he felt like it.

Mr. Cole didn't forget the invitation. He watched the growth of the infant magazine and saw packaging as a rich and unexplored area which offered a challenge to his searching mind and exuberant energy. When he heard that Mr. Breskin was thinking of opening a Chicago office, he saw that the time was right.

Early in 1932 Alan Cole was sent to Chicago to establish the Midwestern branch. He cleaned up that territory so fast that within two years he was called back East to become general manager of the Breskin & Charlton Publishing Co. and later he was elected vice president—where he remains today as Mr. Breskin's right-hand man.

Mr. Breskin's interest in the plastics field has run parallel with that in packaging. As soon as he got into the packaging field, back in 1927 and 1928, he began to see that there was an enormous market for plastics in packaging. In 1934 he purchased a struggling paper called *Plastics* and quickly turned it into *Modern Plastics*—a counterpart of MODERN PACKAGING. With the same high publishing principles applied, this magazine has duplicated in every way the success of its older sister; it is now regarded as the worldwide authority of its field. In 1936 a *Plastics Catalog* (now the *Modern Plastics Encyclopedia and Engineers' Handbook*) was created, effecting a well-balanced publishing operation in the two fields. In 1951 a new publication, *Plastics Merchandising*, covering the retailing of plastics products, was added. While under the same publishing and business management as MODERN PACKAGING, the plastics publications have always maintained separate editorial staffs.

Offices of the Breskin publications have, of course, expanded many times over from that first dingy room in the old Pulitzer Building. In fact, the first move, to a three-room suite at 11 Park Place came within three months—before the first issue came out. After exhausting the expansion possibilities in that building, the company in 1932 opened its first specially designed publishing offices in what seemed like spacious quarters at 425 Fourth Ave.

Mr. Breskin had always felt that the magazine's offices should reflect the good taste and modern design which he tried to create in the magazine itself and at 425 Fourth Ave. he was able at last to have not merely an office, but a showplace for

packaging, with a permanent exhibit of outstanding packages. In 1938 the expanding Breskin organization took over the 26th floor of the Chanin Building, at 122 E. 42 St., one of New York's tallest skyscrapers. By 1950 it was bursting the seams there—the Circulation Department having moved into another building in downtown Manhattan—and in February, 1951, the organization moved into its present quarters in the new, completely air-conditioned building at 575 Madison Ave., with new furnishings and equipment.

In its 25 years MODERN PACKAGING has had only four editors. When Mr. Charlton retired in 1937 he was succeeded by the then managing editor, Albert Q. Maisel. Christopher W. Browne took over the editor's chair in 1941, but soon was called upon to devote his primary attention to the growing *Modern Packaging Encyclopedia*. The present editor, Lloyd Stouffer, has directed editorial activities of the magazine since September, 1943—just about one-third of its life.

Promoting packaging

As has been pointed out previously in this article—as well as in independent commentaries—the service of MODERN PACKAGING to its field has been far more than just that of a faithful reporter and commentator, important as that function may be.

The founders took the broad view that whatever furthered the interests of packaging also helped the magazine and they set out not only to weld an integrated packaging field, but to educate the public in the importance of packaging. The latter was an important point, because not only did the public 25 years ago have little appreciation of the convenience and protection functions of packaging, but there was, during the depression years of the 1930s, a concerted movement to condemn nearly all packaging as a waste of the consumer's money. If the more militant agitators had had their way, we would have gone back to the cracker barrel.

During these critical years, therefore, the publishers of MODERN PACKAGING not only poured most of their profits back into improvement of the magazine as the voice of packaging, but they somehow found many thousands of dollars to spend on promotional activities which won favorable publicity for American packaging all around the world.

Undoubtedly, the promotion that will be longest remembered by both public and industry was the All-America Packaging Competition, held annually from 1932 to 1942.

It started with an article in the February, 1932, issue which brought to the attention of the packaging world the magazine's own selection of "the 12 outstanding packages of the year," which it called the "All-America Twelve." It was but a step from this into a full-fledged national All-America Packaging Competition. Entries were solicited not from package suppliers, but from packagers themselves—without charge. The magazine provided handsome trophies for the winners, as well as a place of honor in the annual Award Issue, and industry provided a board of competent, independent judges who could evaluate the entries from all aspects.

Among the All-America judges were such men

THE PACKAGING CATALOG AND HOW IT GREW



SINCE THE FIRST *Packaging Catalog* appeared in 1929 (foreground), the annual reference work published by MODERN PACKAGING has gone through 23 editions, all of which are shown here. The name was changed to *Modern Packaging Encylopedia* after 1945.



PROMOTIONAL LITERATURE issued by MODERN PACKAGING through the years—of which these are just a few examples—will be remembered by advertisers and readers.

as William M. Bristol, Jr., of Bristol-Myers Co.; the late George R. Webber, in charge of packaging development for Standard Brands; the late Earnest Elmo Calkins, dean of the advertising profession; Katherine Fisher of the *Good Housekeeping* Institute; Stuart Peabody of the Borden Co.; Lockwood M. Pirie of Carson-Pirie-Scott; Walter Dorwin Teague, the designer, and many others prominent in industry and the arts.

The title "All-Amercia Twelve" was retained in the first competition, in 1933, but was given new meaning by the segregation of packages into 12 groups, by types—bottles and jars, cartons, cans, etc.—so that a champion could be crowned in each group.

A total of 357 packages were entered in the second All-America and the general level of excellence was so high that the editors felt the selection of an arbitrary 12 packages would work an injustice. So, in the issue of the following March, the 100 outstanding packages of the year were shown.

The first All-America Permanent Package Exhibit grew out of this second competition. All entries were placed on exhibit by MODERN PACKAGING for packagers and consumers to view. Eventually, huge traveling exhibits of winning entries were organized to tour the country and bring packaging's story direct to the consumer. The 1937 winners were shown, among other places, in the Museum of Science and Industry in Rockefeller Center.

The competition grew by leaps and bounds. By 1939 there were no less than 30,000 packages, displays and machinery set-ups entered and the mere matter of laying them out for judging required the rental of an entire floor of the Chanin Bldg.

The issues of MODERN PACKAGING in which All-America Award winners were announced—usually in March—were lavish productions of 300 or more pages, consistently prize-winners themselves in magazine competitions.

After 1942, wartime conditions brought a halt to the All-America Competition, but it had already served its purpose—and it was becoming too big and too expensive for any publishing company to handle.

However, the principle of promoting better packaging through spotlighting good design and outstanding success stories has been continued through two notable cover series.

During 1947 and 1948 MODERN PACKAGING presented a series of hypothetical design studies —one each by 24 of the nation's top package designers—to illustrate the varying approaches to, and solutions of, typical packaging problems.

Starting in January, 1949, and continuing through the present (with a single break for this month's Silver Anniversary cover), there has been a series of cover illustrations and stories based on the magazine's nominations for *Packaging's Hall of Fame*. Feeling that magazines usually are too much pre-occupied with what is new, rather than what is solidly established and proved, MODERN PACKAGING is taking this means of paying tribute to the most successful, time-honored packages in each field of products—and at the same time educating its readers by a thorough analysis as to how those packages got to the top.

The *Hall of Fame* series has been widely publicized and acclaimed. The first 12 nominees were exhibited, along with MODERN PACKAGING's original cover artwork, at the 1950 Packaging Show and later an enlarged collection was exhibited in France, Holland, Germany and England. Nearly 200,000 reprints have been distributed and the first year's series won a top award for best Graphic Presentation in the *Industrial Marketing* competition.

The All-America Competition from the very beginning aroused interest far outside the field of packaging. Almost without effort, it received priceless publicity in media of every description. Within a few years, a veritable avalanche of news clippings was descending annually upon the heads of MODERN PACKAGING's editors. It was estimated that the 1939 Competition was reported by media with a total circulation in excess of 60,000,000.

The stimulation of packagers toward ever better efforts was obvious; the educational effect on the consumer was incalculable.

The tremendous scope and impact of the All-America called for a celebration, once the work was done and the winners picked. From the beginning, MODERN PACKAGING played host once

a year at an All-America Award Dinner, which came to be the highlight of Packaging Exposition week. These dinners, the entertainment and the souvenirs handed out became so famous that invitations were as eagerly sought after as bids to a Gridiron banquet.

Suffice to describe one never-to-be-forgotten banquet, in March, 1940, in the Grand Ballroom of the then-new Waldorf-Astoria Hotel in New York. More than 800 dinner-clothed men and women sat down to absorb a symbolic menu by Oscar of the Waldorf—starting with California fruit cocktail and progressing through food from 15 farm states. The theme of this dinner was what packaging had done for the farmer and the consumer of farm products—how it had preserved seasonal crops so that they would be available any time during the year . . . how it had stored the food of fat years, in packages, against the demands of leaner harvests . . . how it brought the produce of one state to consumers living thousands of miles away and kept it clean and fresh en route. At the climax of the entertainment, two big farm horses hauling a hay rack loaded with hay and a dozen beautiful girls came rolling into the Grand Ballroom. Nobody but the instigators of the stunt knows yet how the horses got into and out of the Waldorf-Astoria—but the incident served to impress this occasion indelibly on the minds of everyone.

For each of the All-America dinners, from about 1937 on, MODERN PACKAGING produced a new sound-and-color motion picture which served not only to present all the award-winning packages, but went on to tell the story of packaging in America's economy and to show the operations of a typical packaging line. The films proved to have great educational value and were so much in demand by schools, clubs and business organizations all over the country that the magazine had to set up a special department to handle the booking arrangements.

Finally, MODERN PACKAGING saw its campaign for integration of the packaging field culminate in the banding together of package makers and package users in such permanent organizations as the National Packaging Exposition and Conference, sponsored by the Packaging Division of the American Management Assn., and the Packaging Institute, the technical forum of the field.

The story of the growth of these associations is told elsewhere in this section, but Charlie Breskin remembers clearly how it all started.

W. J. Donald, then managing director of the American Management Assn., received MODERN PACKAGING and through it was impressed with the importance of this phase of marketing. He came up to see Mr. Breskin in January, 1931, and out of that talk over the old roll-top desk came the plan to hold the first A.M.A. Packaging Conference, Clinic and Exposition, as a function of the A.M.A.'s Consumer Marketing Division, at the Hotel Pennsylvania in New York in 1931.

The Packaging Show, which has its 21st renewal next month, has, of course, become one of the biggest trade shows in the world and out of it has evolved the Packaging Division of the A.M.A., the Packaging Machinery Manufacturers Institute and, finally, the Packaging Institute.

"They (the publishers and editors of MODERN PACKAGING)," says Arthur J. West in his book, "followed the principles set down by Breskin in the beginning: 'sell the industry and you sell your publication' . . . They had to build unity out of 40 diverse fields. And it was through these extra-curricular activities that they were able to bring it off.

"They were out to make money, like any other businessmen. But they did it the hard way. It was probably the best way. They put about as much in as they took out. Today, they can look at any package on its counter-crossing and say, 'Truly, we had some part in this.'

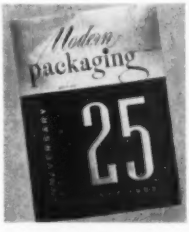
"They have built into an industry. They are as solid as their industry, as broad as their industry, as big as their industry. Packaging and MODERN PACKAGING are inseparable. And neither of them appears to be sitting still."

The Anniversary Cover

For the special design of its 25th Anniversary cover MODERN PACKAGING turned to a man who is generally considered one of the "young guard" of the package-design field, although he has been turning out packages since 1935, is a three-time winner of All-America Awards and has authored folding-carton designs that took top awards in the competitions of the Folding Paper Box Assn. of America in 1947 and 1950. Robert G. Neubauer, the designer, did packages for McKesson & Robbins for seven years, was later associated with Dohner & Lippincott and, since 1945, has conducted his own studio in Bridgeport, Conn., numbering among his clients the Great Atlantic & Pacific Tea Co., General Foods, Fleischmann Distilling Corp., Union Carbide & Carbon Corp., Delta Power Tools and H. P. Hood & Sons. (For the story of one of the most recent Neubauer design jobs, see p. 218.) Our special Anniversary cover was printed by The Gallery Press, New York, on Mirrogloss 80-lb. coated stock, using plates made by Arrow Engraving Co., New York, and was laminated with 88-gauge acetate by the Arvey Corp., Chicago.



R. G. Neubauer



Changing concepts of packaging

ANNIVERSARY 25 1927-52

Our 25 years have brought a new recognition of the art and its function in the economy. By CHRISTOPHER W. BROWNE



PACKAGE PLANNING in most companies today requires a standing packaging committee representing all interested departments—a new concept since 1927. This Winthrop-Stearns group, with full-time chairman, rules on all changes.

It was a rugged period—the quarter century that began in 1927. Packaging had to adapt itself to a wide variety of conditions. The scars of World War I were still unhealed. A major depression—the severest in financial history—was ushered in; Kallet, Schlink, Chase, et al., were conducting their self-appointed guardianship of the consumer and making a good thing of it. Legalistic controls such as the Food, Drug & Cosmetic Act were adopted. The clouds were gathering for the second world war, which broke in all its fury during the latter part of the period.

Packaging took all these things in stride—not merely proving itself adaptable, but also demonstrating its capacity for tremendous service both for civilian needs and military programs.

It is the aim of this article to sketch in broad strokes the effects on packaging, during this period, of ideas, trends and events.

In the booming year of 1927 a new attitude toward packaging was beginning to manifest itself. The various industries that served to supply packaging needs, as well as the thousands of business organizations which depended on them, were beginning to realize that they had many non-competitive interests in common. The packaging world was becoming articulate. Basic ideas were getting into print. In truth, the world was waiting for a new magazine dedicated exclusively to the interest of "the packaging field"—a field the existence of which was then only dimly realized. A clearing house for ideas was needed.

Two terms might serve to characterize the new attitude that began to appear about the same time as MODERN PACKAGING—it was inclusive and it was progressive. It was inclusive in that it took fully into consideration the four basic functions of packaging: protection, economy, convenience and sales effectiveness. The package, it was asserted repeatedly, must be more than a container. The new attitude was progressive in that—among other things—it helped break down the erroneous belief that package changes were dangerous; it was on the alert for constant

improvement—and learned to profit by redesign.

Withal, however, producers of packaged products were cagey—they seemed to have adopted Pope's injunction—

> *"Be not the first by whom the new is tried,*
> *Nor yet the last to lay the old aside."*

And there is much to be said for this conservatism. After all, the most ardent advocates of package redesign would be the first to emphasize the importance of a package in building the market for a product. Perhaps the old familiar design was the cornerstone of product success—why take chances? For that matter, even now there is no sure-fire method of measuring package importance. As long as there is a means of definite and infallible identification, the consumer today doesn't worry too much about color, design and form. The package has other jobs of equal value.

This fact was borne out by the experience of some of the more venturesome manufacturers in the textile field. As far back as memory goes, such products as towels and bed linens had been marketed without benefit of package. A few hardy pioneers in this line dared to put a brand name and a package on their goods—and to the surprise of everyone concerned, the skies did not fall. The consumer liked to get merchandise that hadn't been pawed over or soiled and shelf-worn; and the merchants—some of whom had opposed or reluctantly accepted the innovation—came to see unanticipated advantages. Now, informative labeling—which grew up in this quarter-century—is almost the universal practice in textile merchandising.

The research attitude

Meanwhile, technical research was commencing to show its head. It was destined to grow to a position of enormous importance, although in the light of today's scientific methods, some of the early package-testing procedures border on the humorous. A case in point was that of an inland distributor of seafoods planning to package the goods he handled. He subjected a proposed package to a rigorous test. He put his container, filled with oysters, into his pocket and took it with him on a 100-mile automobile trip, and reported that package and contents were in perfect condition on arrival.

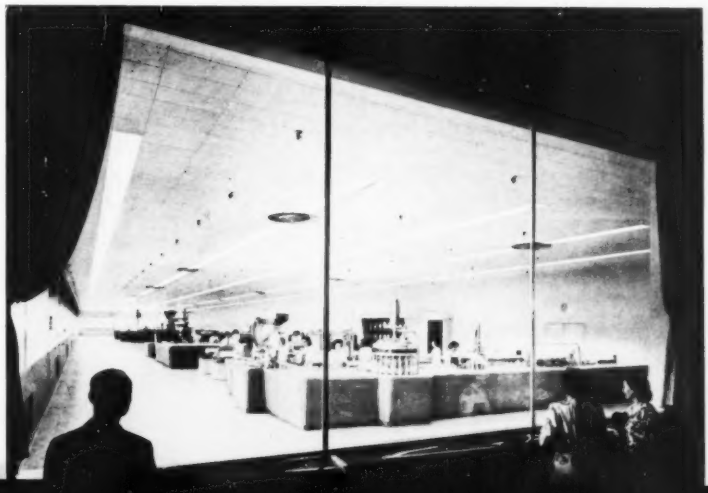


PHOTO COURTESY DU PONT.

CONSUMER TESTING at the point of sale has replaced the hit-or-miss criteria for package design. Here a researcher notes shopper reaction at a variety-store counter.

Research technicians learned to address themselves to two aspects of packaging: adequacy as a container and effectiveness as a sales help. The former enlists the services of the chemist, the technician and the engineer; the latter calls on the artist, the psychologist and the salesman. Too often in the early days the two appeared to be in opposition to each other. It remained for packaging to find ways to harmonize the two. Both are essential.

When the consumer entered the picture, she (for in 80% of the families a woman is the purchasing agent) refused on the one hand to be alarmed by the consumer guardians and she refused on the other hand to accord full confi-



STREAMLINED mechanization and modern standards of working conditions have made a showplace of packaging departments. This picture-window is of Johnson & Johnson Baby Products plant.

dence to the producer. In all, hers was a wholesome influence. Some producers—a few at first, then in ever-increasing numbers—found that money spent to learn what the consumer wants paid off handsomely. Today the thoughtful packager invests in programs of which the objective is to ascertain in advance the probable reaction of the public to proposed new products and packages. Independent research organizations are commonly called on to conduct consumer studies for companies who do not maintain their own research departments.

Prominent among these new responsibilities—developed during the quarter century—have been packaging methods for quick-frozen foods and pre-packaging of fruits, vegetables and meats.

Frozen foods, obviously, are here to stay. Packaging made it possible. During the quarter-century a great deal of experimental work took place, in both frozen and fresh-food packaging, to determine (1) the proper material and form of the package and (2) the level at which the packaging should be done. The final answers may not yet have appeared and experimentation will doubtless continue, but enough has been done of a conclusive nature to prove that packaging has created two vast new industries.

The strides which packaging has made in the United States during our quarter of a century have not been without effect in Europe. Twenty-five or 30 years ago American producers of packaged goods looked to Europe in matters of design and structure. Indeed, some of the early numbers of MODERN PACKAGING carried articles by German and French writers—articles that fairly oozed superiority and complacency. But mass markets, world-wide distribution and constant package improvement brought about a different attitude. Today the whole world looks to the United States for packaging guidance.

One rather significant reason for the faster and more considerable progress made in this country is undoubtedly the effectiveness of our highly developed business press. No other country even begins to possess such a thorough inter- and intra-industry communications network as is represented by the hundreds of specialized publications devoted to rapid, accurate reporting, interpretation and evaluation of new processes, equipment, products, trends and research.

Although the story of MODERN PACKAGING itself is told elsewhere in this issue, it is in order here to point out that as a pioneer in its field, MODERN PACKAGING has not only continuously recorded progress in packaging, but has also shared responsibility for defining packaging as a separate, wide field in which many diverse producers and merchandisers can share a common interest and thus learn from each other. Any analysis of the progress made in the packaging field must take into account the pioneering and unifying force of business journalism.

Particularly has this played its part in arousing keen interest in packaging on the part of top executives. Competitive pressure, cost cutting, institutional pride—all helped to motivate this executive interest. But whatever the motive, package development is no longer a Topsy-like growth; it is today the outcome of systematic planning.

Package planning

A field of the size, scope and importance of packaging—especially in a country where organization of mass production and marketing comes as second nature—would not delay very long before adopting systematic planning. As is the case with most projects, the first task was to define the problem—composed of many smaller problems—and then map out a course leading to their solution. Those who grappled with these problems were quick to formulate lists of points that must be considered if a package were to be produced that was at all adequate for its job.

These lists comprise an interesting measure of progress in the direction of planned packaging. For example, an article entitled "Analyzing Packaging Problems" appeared in the March, 1929, issue of MODERN PACKAGING, an important feature of which was a list of 15 points to serve as a guide in developing a package. In his book "Developing Marketable Products and Their Packagings" (McGraw-Hill Book Co., 1945), the late Ben Nash, long a leader in package-design

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THE AUTHOR, Christopher W. Browne, editor-in-chief of *Modern Packaging Encyclopedia,* has observed the changing scene in packaging more closely perhaps than any other one man over the last 25 years. From a background of 11 years as manager of marketing service for the United States Printing & Lithograph Co., he came to MODERN PACKAGING as editor in 1941. Since 1945 he has devoted his efforts principally to the *Encyclopedia,* while serving the magazine in an advisory capacity. Noted as a lecturer and speaker, he has for years been one of the most articulate champions of modern packaging principles.



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thinking, presented 22 cardinal points which he called "development project elements." Many of these bear on the merchandising aspects of the product as well as its package.

In the 1949 edition of *Modern Packaging Encyclopedia*, a "Check List for Package Planning" was presented. The 15-point list of March, 1929, approached the subject from three angles. The 1949 Encyclopedia list contained 108 points classified in eight main groups covering:

I. Product Characteristics
II. Selecting Package Material
III. Production Considerations
IV. Convenience Factors
V. Considerations of Economy
VI. Merchandising Considerations
VII. Factors of Package Appearance
VIII. Coordination in Planned Packaging

It is a far cry from the early to the latest list and no one would assert that the latter pontificates the final revelation. Scrutiny of most such lists reveals a definite bias in one direction, whereas packaging must look in many directions. Probably no two plans or lists will be found identical, but an orderly procedure is assurance that every aspect will be fully considered.

As a result of even a little thinking comes the quick conclusion that the package is of deepest concern to every department; and that the perfect package—or one as nearly perfect as possible—is the outcome of teamwork between these departments. The reader who takes the time to go back over published material that appeared during the period under consideration will note the slow but definite emergence of this idea. Perhaps it cannot be said to have become fully

THE EVOLUTION OF PACKAGED FOOD MERCHANDISING



1899 The cracker-barrel scene, so typical of grocery stores prior to the turn of the century, is taken from an old drawing which also formed the background of our Uneeda Biscuit *Hall of Fame* cover, February, 1949.



PHOTO COURTESY DU PONT.

1927 The service store, when MODERN PACKAGING began, still stocked many staples in bulk. A clerk was required to "wait on" every customer and to weigh out tea, sugar, etc., on scales and into brown paper bags.

TODAY The supermarket of today is an enormous, streamlined expanse where every item that is sold is packaged, every package is its own salesman and every shopper is her own clerk. The cost-cutting self-service principle has spread in recent years far beyond that of food products and into almost every type of retail store. Modern packaging has made it possible.

PHOTO COURTESY RAYMOND LOEWY.







PHOTO COURTESY DU PONT.

STORE FIXTURES have been revolutionized by packaging developments. The refrigerated, open-top case is vital to self-service of pre-packaged meats, produce, frozen foods.

accepted even yet; but certainly the basis for constructive planning has been formulated.

In packaging, as in other fields, it seems that the engineering man is more willing to share his knowledge than is the marketing man, possibly because the latter is closer to the heat of the competitive struggle. With the marketing man, the success of a new product or a redesigned package may depend on keeping plans under cover until every last detail is in perfect shape. From a sales manager comes this: "We exercise great care to keep from tipping our mitt to the competitor during the development stages. Once our project is complete and ready for launching, there is less likelihood of their stealing our stuff. Even then, however, there is no assurance that we'll not be imitated, so we keep a close hold on the sales results."

To this, the technical man mutters something about the ostrich with his head in the sand—and goes right on picking up information from all possible sources: supplier salesmen, machine representatives and even his "opposite number" in the competing organization, not to mention convention speeches and forums, with the opportunities for individual conferences that such gatherings provide.

Teamwork in package planning is one of the most constructive developments of the quarter-century in question. In reviewing the period, that ideal objective stands out in bold letters, although articles devoted exclusively to the subject are infrequent.

Gleanings from the written record of the period point up the following conclusions:

1. The package planning or development department should be set up to be answerable to top management.

2. It should be strictly a service department, a development department, a coordinator, a library of information.

3. The head of the planning department should be able to get on with other people, tactfully drawing from other departments and individuals the needed information and assistance. Teamwork starts with the department chief.

This principle of package planning—evolved almost empirically over a period of at least 25 years—finds practical application in various forms, but the functions of the potential members of the team may be summarized as follows:

Sales Department: Initiates or reports on the desirability of a new product or the need for a new package.

Merchandising Department (sometimes within or identical with the sales department): Makes decisions about unit sizes, selling prices; gathers information about potential markets, distribution channels, retailer habits, competition and the ultimate consumer.

Advertising Department: Handles problems of design and appearance; decides where copy shall appear and how it shall be worded; plans store display and special advertising.

Legal Department: Stands watchfully by to insure compliance with Government regulations; handles problems relating to availability of brand names and protection of package designs.

Technical Department: Investigates and tests package materials and constructions, advises on procedure; compiles package specifications.

Purchasing Department: Procures packaging materials at proper prices; watches and inspects deliveries; checks availability and continuing supply; obtains substitute material if necessary.

Production Department: Considers first the product itself, its form, its physical characteristics, the hazards it will face, the protection it will require; is concerned with the selection of package material as to its appropriateness to run, its structural strength, workability; decides on the adequacy of existing equipment or the necessity for new.

Shipping Department: Should have an opportunity to pass on the handling and shippability of the wholesale container units.

Consumer Service: Keeps an eagle eye on consumer acceptance; makes recommendations on such matters as convenience factors, package forms, etc.

Only the largest organizations would be likely to have all the special departments in the above list, but the significant thing is that packaging people—during the quarter-century—have come to think in terms of functions; and all of the foregoing functions must be present in package planning. Minor conflicts and differences of opinion are ironed out by the package planning

head. Probably no two organizational set-ups will operate the same, but if all the functions are duly considered the result is likely to be satisfactory.

Production aspects

Like the package itself, the package production line has progressed during our quarter of a century. In packaging's infancy, packaging operations were the tag end of the production process, conducted in a more or less haphazard way. Just a necessary nuisance. This wasn't good enough for some clear-visioned people who saw in those operations an opportunity for greater efficiency and lower costs. Under their spurring, aided considerably by the publication of their ideas, a new concept has been developing, which is still susceptible to further improvement.

The new concept, designated broadly as "materials handling," regards all production operations as an integrated process, of which packaging is usually the final step. The subject is a natural for the engineering mind; plant and independent engineers, as well as manufacturers of machinery and equipment, all have made important contributions to the advancement of the principle.

One independent consultant summarizes basic axioms thus: (1) select equipment suitable for the particular problems to be solved; (2) design an integrated system which covers all the handling tasks of the plant; (3) prepare the organization—for the men who will handle the program should be thoroughly "sold" on it.

A plant engineer for one of the large food-producing firms, in discussing this subject, declared that the handling of materials, before and after packaging, has reached the point where it is receiving as much attention as the actual packaging operation itself. Plant layouts are being planned accordingly, although that means that in some cases—because of the rapid development of the idea—management may be confronted with the job of introducing efficient handling methods into buildings that were constructed when little consideration was given to the handling problem and without knowledge of equipment that has appeared in response to the new needs. It has been found, however, that not infrequently costs of equipment can be written off in as short a period as two years, due to the economies effected.

Some plants have the problem of manufacturing and packaging a wide variety of products, with runs varying in size. This calls for packaging lines that are interchangeable, even though it may mean some sacrifice of speed. During the quarter-century, this problem has given rise to two schools of thought, discussed at some length in a recent article describing the new Lever Bros. Los Angeles plant, which was completed during 1951.*

One segment of the packaging-engineering profession favors a highly specialized installation of closely coupled machinery (sometimes specially designed) to do a continuous high-speed job on a single product. In contrast, another group of the engineering fraternity prefers multiple units in an integrated flexible arrangement so that the flow of packaging can be switched back and forth as production demands.

The fact is, both types of plant layout are needed, depending on product and size of run. The machinery manufacturer may be depended upon to design and construct equipment that will keep step with the thought and needs of the package-production engineer.

Merchandising trends

Meanwhile, in the realm of business organization and merchandising, changes have been taking place that are every bit as far reaching in their effect on packaging as those in the field of production. The development of high speeds and immense volumes of production played a part in bringing about changes in the business structure of many producers of packaged goods. Comparatively few concerns, 25 years ago, had a large enough distribution to take full advantage of mass-production principles and machinery. Here they were, with productive equipment capable of turning out enormous volume—but with a market reluctant to absorb such quantities of goods. The answer was found, in part at least, in the merger; and there appeared such organizations as General Foods, Standard Brands, American Home Products Corp.—to mention only a few.

Sometimes a merchandising trend was due to a change in the method of packaging a product,

* See "Multi-Flow Packaging," MODERN PACKAGING, Dec., 1951, p. 105.

NEW MATERIALS have markedly influenced packaging. Few, if any, of the cellophane-wrapped products shown here would have been found in packages 25 years ago.



PHOTO COURTESY DU PONT.

as for instance the wrapping of bakery goods. Time was when commercially baked bread was spurned by sanitary-minded consumers; but when bread came to be sliced and wrapped by the baker and when cakes began to appear in cellophane-protected packages, baking moved out of the domestic kitchen into clean and sanitary commercial bakeries, whose plant capacity and volume increased in direct proportion to the value of the service rendered.

Another fascinating chapter in the history of merchandising is the story of frozen foods, the packaging developments of which have already been touched on. Before this mushroom growth could function to its full possibilities, merchandising practices had to undergo some changes. For instance, the need for refrigerating equipment, adapted to use in the modern retail store, had to be satisfied before the idea was full-flowered; and likewise distribution equipment had to be provided that was specifically adapted to the new and exacting requirements.

It was in the retail store itself, however, that the most significant changes were made. There were cases in the early part of our 25-year period when some of the prognosticators got off on the wrong foot. Dr. Glenn Frank, economist and president of the University of Wisconsin, made this statement:

"In the thoroughly efficient store of the future, all standardized, well known and commonly used packaged products will be sold through machines, and human ingenuity will be used only when salesmanship is really needed."

Vending-machine merchandising, or robot selling, has grown considerably, but it hasn't quite lived up to that prediction. About the time Dr. Frank made his prophecy, however, Clarence Saunders—flying in the face of tradition and accepted food-store practices—was expanding his Piggly Wiggly chain, the first self-serve operation extensive enough to prove any point. The fear most successfully refuted was that of tampering and pilferage. Today's supermarkets have discarded most of the Piggly Wiggly safeguards.

The supermarket self-serve idea, so far, has been mainly applied in the food field, where quick turnover and moderate per-unit profit is the rule. Compare the food chain's 3,000 or 4,000 items with the 12,000 to 18,000 of the drug store or the 20,000 to 28,000 of the hardware store: the difference in inventory, turnover and profit margin may have a bearing on the problem.

The fact remains, however, that the self-serve store has had a powerful effect on package design and package construction that has spread to other lines—perhaps the most powerful single effect of this quarter-century. Quicker identity of product and brand; utilization of package surface for consumer information rather than glorification of producer—these are some of the forward steps which all packaging owes to the self-serve store.

With the shortage and high cost of retail sales personnel—particularly from 1941 on—almost every line of retail business, from the department store on down, has taken a tip from the Piggly Wiggly and has found that with packaged merchandise, easy to select, properly labeled with all necessary information, the clerk becomes merely a means of recording sales and making change, and thus one clerk will do where five salesmen were needed before. With the virtual disappearance of personal salesmanship, the burden on the package has increased manyfold.

Meanwhile, store display has taken measures to assume greater responsibility in the merchandising set-up. Books have appeared—notably one by Larrabee and Franken, devoted mainly to the merchandising and display aspects of package preparation; others by Carl Percy and Michael Gross—which combine scientific evaluation with artistic eye appeal. An important statistical study, conducted by Miller McClintock and Albert Haase and sponsored by the Advertising Research Foundation, established beyond all possibility of doubt the circulation value of store window display. The principles and conclusions of this study were put to practical use by Frederick Wertz through an organization, Window Advertising, Inc., formed about the beginning of our 25-year period. A significant principle that has come to be axiomatic is that window display is the connecting link between consumer advertising and the sales spot where the package may be purchased.

INFORMATIONAL LABELING and realistic full-color product reproduction have become the rule in canned foods. This label tells shopper exact amount of contents, the number of servings and how to serve appetizingly.



Regulation

Any activity that touches the lives of the entire population as intimately as the production

and packaging of foods and drugs—with potentials of physical harm and monetary corruption—could not escape governmental attention indefinitely. As we look back now, however, it seems as though the public conscience was a long time in reaching the point where it could or would exert on Congress the requisite pressure for regulatory action. It is only fair to say that action would have been delayed much longer had it not been for the activities of militant consumers. Manufacturing operations were being transferred from home to factory. Packaged products were being transported for greater and greater distances. Manufacturers were being allowed—too long—the uncontrolled use of deleterious preservatives.

When Dr. Harvey Wiley, back in the '80s, began his long career of public service as chief of the Bureau of Chemistry, there were very few statutory regulations. It was not until 1906 that his efforts culminated in the adoption of the Pure Food and Drug law that came to be known as the Wiley Act. Although this was a notable step forward, it did not satisfy the ideas that came to be current in the '30s. Public interest became sufficiently aroused to force the adoption of a more drastic statute to replace the Wiley Act; and it resulted in the present Federal Food, Drug & Cosmetic Act, which became effective in June, 1938.

Speaking mildly, the new law was not hailed by the business world with paeans of joy. The business man likes to retain his independence; in many cases the new law obliged him to make drastic changes in his packages. But in the 15 years that have sped by since this law was passed, the vast majority of business houses who are operating legitimately have come to realize a two-fold benefit: this statute helps to build greater consumer confidence and it also helps to protect the consumer from the unscrupulous operator—happily only a small minority—who will go to any length for a fast dollar.

During the Congressional debates on the food-and-drug question, amendments were offered that would have made grade labeling mandatory. None of them were adopted, however, although a voluntary plan was devised which was, in effect, a test for the idea. Several of the large food chains adopted the plan, where it is still in operation. According to an off-the-cuff comment of one of these organizations, sales records showed no difference in the movement of grade-labeled products as compared with similar products not grade labeled.

Another influential piece of legislation resulted from the long-drawn-out efforts of Congressman Fritz Lanham. Adopted at last in 1946, this law was intended to correct omissions and outworn practices in the existing trademark procedures



PHOTO COURTESY SAT. POST.

THE END RESULT of modern packaging: the shopper's market basket now brings home to the family better, more healthful and more appetizing foods—at much lower prices.

and to protect owners of brand names from piracy at home or abroad. Passed in the interests of the trademark owner, it is nevertheless a complicated statute which must be studied carefully if one is to enjoy its full advantages.

In the matter of law enforcement, the governmental agencies have some powerful allies in the ranks of business. Trade associations in the packaging field generally are vigilant and helpful in keeping their numbers within the law. One association went through a bitter legal battle that resulted in a complete re-organization of its own set-up as well as mandates for some of its members. Too, more and more business firms are seeing the regulations as a matter of self interest—as witness their efforts to help the fight against contamination of packaged products, even though technically the manufacturer is not responsible after the goods are out of his possession.

Perhaps this last point is the greatest forward step which packaging has made in our quarter-century—definite growth and wholehearted acceptance of responsibility for the product during its entire journey to the consumer's hands. In this period which we have been reviewing, packaging has expanded in remarkable measure. No longer does it need advocates to justify its existence—it is a tried and tested public servant.



A NEW FILM is studied by research engineer at the pilot-plant stage. Transparent films have been the biggest single development of the last 25 years—and new ones are still coming along. PHOTO COURTESY DU PONT.

ALUMINUM FOIL being pack-rolled and trimmed. Thin-gauge foil, usually laminated, is workhorse of protective flexible packaging.

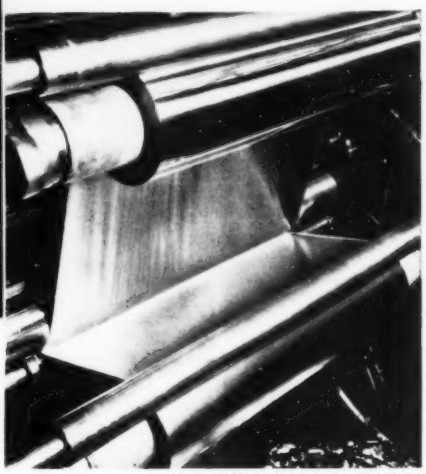


PHOTO COURTESY ALUMINUM CO. OF AMERICA

25 years of progress in . . .

The materials of packaging

ANNIVERSARY 25 1927-52

Development of films and other functional, flexible materials highlights the new era of merchandising.

By HERBERT T. HOLBROOK

Beginning somewhere in the middle '20s—coincidentally with the birth of MODERN PACKAGING—it may truly be said that the era of *modern packaging* began.

The significant developments in packaging materials since 1927, it seems to me, have been dictated by three closely interrelated factors, each of which stems from intensified competition among manufacturers for their share of the consumer dollar: (a) recognition of the importance of the package as a selling tool; (b) new manufacturing processes and techniques—particularly those concerned with lightening the drudgery of the housewife and (c) the prodigious new developments in retail-distribution conceptions. If we were to choose a single symbol of all these influences on packaging it would simply have to be the supercolossal self-service store.

The contributions of the packaging field to these new trends have been so fundamental as to raise the old question as to which came first: the chicken or the egg—the self-service store or modern packaging? For, during this last quarter century, speeded by expanding communities and transportation mobility, came the final stages of transition from the cracker barrel and the side of bacon to the factory-wrapped, visible unit of a dozen cookies and the half-pound package of presliced bologna.

In the scope of this anniversary review, it would be impossible to discuss all of the important new qualities taken on since 1927 by the old, established, basic packaging materials—the improved waxes and other paper coatings, the revolutionary new can coatings (including electrolytic deposition of tin itself), the vastly im-

proved qualities of folding boxboard and the finer set-up box coverings, the immensely strengthened corrugated and fibre boxboards, the wonderful new array of adhesives of every type . . . even to list them all seems an impossibility.

So this article will be devoted mainly to that group of materials, almost wholly new since 1927, which has beyond question done most in that time to change the character of packaging and package merchandising—the transparent films and other flexible materials which have created the whole field of flexible packaging and which have done so much to make possible the pre-packaged unit for self-service sale at low cost.

The era of transparency

As far as packaging materials are concerned, the most dramatic of all contributions to this distribution revolution in the last 25 years is, beyond question, cellophane. The history of cellophane manufacture in this country coincides almost exactly with this quarter century of packaging progress that we are talking about. The first pound of cellophane was produced on this side of the Atlantic in 1924 and it became a commercial actuality in 1925. But the first cellophane was nothing more than an intriguing, transparent dust-cover. It is perhaps significant that the development of *moistureproof* cellophane—giving the material functional as well as appearance qualities—came almost simultaneously with the first issue of MODERN PACKAGING in 1927.

Dr. W. H. Charch headed the DuPont research group that developed moistureproof cellophane. The very first order ever shipped went in 1927 to a baking concern, for use on fruit cakes. Other bakers quickly took it up, then cigar makers and cigarette manufacturers forced it into big-scale production.

Even at the fantastic first price of $2.65 a pound, America's great consumer-goods packers were quick to see the vast possibilities of cellophane. But in the time-honored American fashion, increasing volume and improving techniques and processes kept pace with expanding demand—and within a matter of 11 years, the cost to the user had dropped to less than 50 cents a pound. These were 18 price reductions in the first 13 years.

Fully as important to packagers as the improvement in economics was the improvement and diversification of cellophane properties. Plasticizers introduced into the "furnish" of the base stock and surface treatments and coatings of a multitudinous nature introduced a wide variety of special properties to enhance its usefulness. Heat-seal coatings, combined with the moistureproof property, gave tremendous impetus to higher-speed wrapping and bagging machines and filling and sealing lines, reducing packaging costs and attracting more and more products into packaging. Inherent greaseproofness, relatively high resistance to chemical action and high impermeability to gases furnished further evidence of the fundamental usefulness of this material. Finally, the irresistible qualities of a transparent material as a merchandising aid led to new types of inks, new kinds of printing equipment and decorative techniques hitherto unattainable on other materials.

Small wonder then that the production of cellophane has grown from a tiny 16,000,000 lbs. in 1927 to almost 300,000,000 lbs. in 1951—and that the demand still exceeds the supply despite the fact that a third substantial producer has now entered the field. Small wonder, too, that cellophane's area of usefulness now encompasses virtually every product in the country—from

PHOTOS COURTESY DU PONT.



EARLY USER of cellophane, before it was made in this country, was Whitman's Sampler. Transparent protection it offered was a big sales booster.



FIRST CELLOPHANE produced in U. S. was $2.65 a pound, was usually kept in safe over night. Expanding production cut price to 50 cents in 11 years.

hardware to textiles, from tobacco to candy, from drugs to every type and variety of food. Invented specifically as a packaging material, it has within an incredibly short time become one of the most important of all packaging materials. Today there are more than 50 different types of cellophane, each "tailor made" for a special class of products.

Cellophane has established its place in this last quarter century as the king of all transparent wrapping materials because of its universality of application, its resultant high production and low cost, and its ease of handling on mechanical equipment. But as packaging science has grown there has come in recent years an increasing recognition of the special qualities of other transparent films—the true plastic films—for certain applications and the very recent development of machinery capable of handling these "soft" films at high speed greatly extends their possibilities.

One of these plastic films—cellulose acetate—is actually older than cellophane and is today its chief competitor volume-wise. Developed as a base material for "safety" photographic film, acetate did not enter packaging to any appreciable extent until about 1930.

In appearance, texture and clarity, acetate closely resembles—and is perhaps too often mistaken for—cellophane. Although it has in most grades been somewhat more expensive than cellophane, its special properties entitle it to a unique and important place in this modern era of packaging. Its clarity is of an even more brilliant nature than cellophane and the quality of results that can be achieved by printing on the reverse side of the sheet are unchallenged among transparent films. It "breathes"—which means that many food products, particularly some types of fresh produce that require a continuing supply of oxygen to retain life or that pass off gases, can be held longer, taste better and look fresher when packaged in acetate. It remains soft and pliable almost indefinitely and its dimensional changes, even under extremes of humidity and over long periods of time, are negligible. Its greaseproofness and resistance to chemical action are of the same order as cellophane.

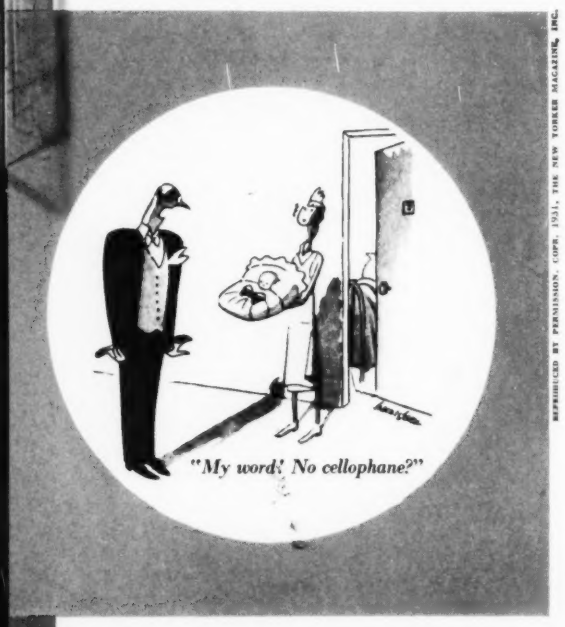
Acetate film, due to its dimensional stability, is responsible for the great success of the window carton. It dominates that field, as well as the prepackaging of tomatoes—two typical applications that come to mind whenever one thinks of acetate.

Acetate has played a tremendously important part not only as an unsupported film, but also as a component of laminated and bonded structures. During World War II it emerged as the most widely used of all transparent materials in military packaging. Resin laminated to paper and wax laminated to scrim cloth with a tacky, self-sealing wax coating, it became famous as an integral part of "Ordnance wraps." Bonded to a thin, tough tissue, which in turn was coated with a pressure-sensitive adhesive, it was used by the millions of yards as a sealing tape and for identification labels.

Laminated to heat-seal-coated foil, acetate is now doing a tremendous job for the automatic, high-speed unit packaging of hygroscopic drug and pharmaceutical products and Quartermaster ration-kit items. Laminated to other transparent materials that are moistureproof, it provides an ideal combination of stability, moisture resistance, seal strength and visibility for powders, pills and liquids.

Early in the 1930s it became apparent that while certain types of cellophane had a high degree of resistance to moisture, the material was insufficient in this respect for many products that still demanded visibility in display. Chemical resistance was good, but limited. Heat seal coatings provided only moderate seal strength in the case of cellophane, while cellulose acetate, although thermoplastic in nature, could at that time be sealed only under the most exacting conditions. Furthermore, both materials became brittle and frangible at low temperatures—with very definite limitations for the fast-growing frozen-food field, which was becoming intimately

USE OF CELLOPHANE was so universal by 1931 that it brought forth this humorous cartoon in *The New Yorker*.



REPRODUCED BY PERMISSION. COPR. 1931, THE NEW YORKER MAGAZINE, INC.



PHOTO COURTESY DU PONT.

ONE MAN'S FAMILY today purchases this much cellophane-packaged goods in but a single month. Cellophane film, which was such a novelty in 1927, is now as much a part of everyday living as are such materials as paper, glass or metal.

and importantly tied in with the self-service store trend.

Here were exciting opportunities for new plastic films—and it was not long before they began to appear.

Just prior to World War II the rubber industry threw its hat into the ring with a rubber-hydrochloride film christened Pliofilm—invented and produced by the Goodyear Tire & Rubber Co. Here was a film that was clear, strong, resilient, thermoplastic (and therefore heat sealable), greaseproof and inherently moisture resistant. It had barely crept out of the nursery before rubber shortages during the war precluded its use for civilian packaging. However, the war gave to Pliofilm (as indeed to so many new packaging materials) a stimulus that was invaluable, for every ounce that could be produced and spared from the rubber stockpiles went into "envelopes" for the protection of aircraft engines and instruments. After the war, production was greatly increased and the technical know-how developed during war years was applied to place Pliofilm in applications where its special properties could be brought to bear.

Pliofilm has definitely changed packaging



PHOTO COURTESY DU PONT.

BIGGEST MILESTONE in cellophane was development of moistureproof grade in 1927. Here its originator, Du Pont's Dr. Hale Charch, re-enacts the historic discovery of cellophane.

practices in the meat and cheese industries. Its remarkable "stretchability" has led to techniques of stretch-wrapping—now mechanized—by which a comparatively small amount of the film can be applied as a tight, sealed covering to cheeses and processed meats. Good flexibility at low temperatures has caused it to be widely used in the frozen-foods industry, particularly for frozen meats and poultry. Its great strength even in thin gauges has made it a favored material for transparent bagging of heavy produce such as oranges, apples, etc. Duplex Pliofilm is responsible for a wholly new type of package which is gaining greatly in popularity—the liquid-holding transparent pouch for such items as pickles in brine, sauerkraut, etc. For its strength, moistureproofness and good sealing, it is frequently used as a component of laminated structures—with foil, acetate, cellophane, etc.—which provide the most highly protective of all flexible packaging materials today. In combination with cellophane, it has contributed to the successful flexible packaging of meat, cheese and other products under a full vacuum or in gas atmospheres.

Another plastic film whose place was proved by wartime military experience is polyvinylidene

chloride—called saran by the Dow Chemical Co., which developed and produces it. Available during the war only in limited quantities, it was reserved for those military items requiring exceptional water-vapor protection. It was used primarily in the so-called Method II (dehydrated) packaging of intricate parts and assemblies, such as aircraft guns and fire-control instruments.

Among all the transparent films commercially available today for packaging, saran has the highest resistance to water-vapor and gas penetration per unit of thickness and it ranks very high in resistance to chemical action. It is, in addition, brilliantly clear and can be sealed electronically as an unsupported film to form a strong weld. A special property is its "cling," which makes it an advantageous material for cheese and meat wraps. While it is still one of the most costly of the plastic films, increasing production is bound to narrow the price gap between saran and other films, and its toughness and strength generally permit its use in lighter gauges than other materials. Backed by paper and board, it has an almost universal application as a closure liner.

Another prewar development—although it has reached its greatest perfection in the postwar period—is Cry-O-Rap, a shrink-type film developed by the Dewey & Almy Chemical Co. Originally called Cryovac film and based on rubber latex, the newer formulation includes a mixture of saran, which greatly improves its natural qualities. This film is usually supplied in an extruded, seamless-tube form and its great virtue is its ability to shrink tightly, upon the application of heat, around an irregular object, exclud-

PHOTO COURTESY CELANESE CORP.



ACETATE FILM has become a favored wrap for tomatoes and other products that benefit by its "breathing action."

PHOTO COURTESY CELANESE CORP.



ALL PLASTIC is this latest package for Sunny Sally, one of the pioneers of branded produce pre-packaging. Molded acetate basket illustrated above is overwrapped with printed acetate film.

PHOTO COURTESY SHELLMAR CORP.



PLIOFILM is now a standard packaging film for many purposes. Two-ply laminated pouch takes liquid-packed pickles to market.

PHOTO COURTESY DOW CHEMICAL CO.



SARAN FILM solves many tough barrier problems. It has the lowest water-vapor and gas permeability per unit of thickness of all the transparent films. Here it preserves ground coffee in tea-type bags.



PHOTO COURTESY DEWEY & ALMY.

CRY-O-RAP FILM, containing saran, has the ability to shrink tightly around irregular objects, excluding air. It is now widely used on frozen poultry.

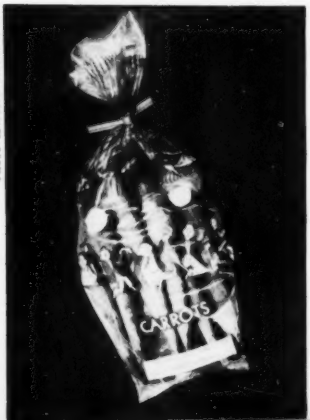
PHOTO COURTESY BEMIS BRO. BAG CO.



POLYETHYLENE LINER in multiwall bag makes a bulk package sufficiently protective for handling of dried milk.

POLYETHYLENE BAG, two-color printed, with twist-tie closure makes an effective pre-package for bunch of fresh carrots.

PHOTO COURTESY MILPRINT, INC.



ing air and effecting almost a vacuum-type package. Equipment for handling the tubing, applying it and shrinking it in a hot-water bath has been developed. Since the film retains its excellent strength and other properties at low temperatures, it has been widely adopted for the packaging of whole frozen poultry; because it excludes air and is moistureproof, it helps retard freezer burn. It has also proved itself in the packaging of luncheon-meat loafs, bulk cheese, etc. As with the other transparent films mentioned, effective methods of printing Cry-O-Rap have been developed, making it a potent packaging material for this era of self service.

Rise of polyethylene

In the last 10 years of this quarter century of modern packaging, the one most important new material certainly has been polyethylene.

The rise in use of polyethylene in the last five years has been spectacular. The resin itself was first developed in England some years ago. Intricately derived from ethylene gas, a by-product of the petroleum refinery, it was inevitable that its real expansion should take place in this country and so it happened—under the sponsorship of Bakelite and DuPont—with commercial production beginning in this country in 1945.

During the war virtually all available resin was allocated to electrical insulation as a coating, but since the war the development of techniques for making unsupported film, coating paper and molding bottles from the resin has resulted in almost 50% of the rapidly expanding production going into packaging end uses.

The impact of polyethylene can be accounted for by the fact that its properties are unique among packaging materials in at least two respects: it is almost completely chemically inert and it remains flexible and retains or improves its properties at temperatures far below those at which other films become useless. In addition, polyethylene combines excellent heat-seal strength, fair to excellent water-vapor resistance (it is better at low temperatures) and good strength properties—and it retains all of these indefinitely. Price-wise, it is lower in cost than almost any other plastic suitable for packaging and its yield per pound is higher than that of any other transparent material.

Polyethylene's chief limitations are a milky appearance, its relatively low resistance to most animal, vegetable and mineral oils and greases, and some difficulty of handling on high-speed automatic packaging equipment as an unsupported film. All of these difficulties, however, probably will be eliminated in time.

Given all of its good characteristics, it was inevitable that polyethylene would quickly assume major importance in a wide field of pack-

THE AUTHOR, Herbert T. Holbrook, has an exceptionally wide knowledge of the materials of packaging. He entered the packaging field immediately after his graduation from Harvard in 1930 and worked with paper coatings. He was with Gaylord Container Corp. in 1941 when called to Washington to become Assistant Chief, Packaging Branch, Office of Chief of Ordnance. For two years following the war he was manager of the Packaging Dept. of Bulkley-Dunton Co., New York, and since 1947 he has been manager of Flex-Vac sales for Standard Cap & Seal Corp., New York. He is a member of military and Government packaging advisory committees and a director of The Packaging Institute.



aging applications. Frozen-food packaging was, of course, a natural. So, too, was the packaging of chemicals and drugs. In molded form, the blow-molded "squeeze" bottle—a development pioneered by the Plax Corp.—for everything from deodorants to acids can be seen on store shelves everywhere and as a bottle stopper it has solved many plaguing problems of the drug and chemical manufacturer.

As a coating on paper, board and other materials, as an additive to wax coatings (now almost standard for bread wraps) and as a ply in laminated structures, it has broadened its use in packaging far beyond that of any other plastic material. Liquid, gas and vacuum packaging with laminated or coated polyethylene flexible structures is already being done successfully and offers tremendous possibilities for the future. Only the renewed demands of the Armed Services have retarded its recent growth in the packaging field, but constantly increasing production may alleviate the pressure before too long.

Still to be reckoned with in packaging—although it is basically not a new material—is vinyl chloride. Recently developed plasticizers that are tasteless, odorless and non-toxic, plus new methods of producing low-cost thin vinyl films, promise soon to make it a full-fledged competitor with other packaging films.* Already the heavier vinyl films are being used for envelopes and kits that have long-use value, and a modified formulation—vinyl-nitrile film—has to its credit one of the most spectacular merchandising successes in recent years in the tough, transparent squeeze-bag which provided self-coloring oleomargarine and broke the back of resistance to this butter substitute. The outstanding characteristic of vinyl, as compared to other plastic films, is strength. It is one of the easiest of plastic films to heat seal and provides exceptional seal strength.

Being dimensionally stable and easily bonded to other materials, vinyl film and vinyl coatings have for a long time had an important use as a laminating ply. One of the most important of the present military packaging materials is a water-vaporproof barrier which uses vinyl film as the inner ply in a cloth-polyethylene-foil-vinyl lamination. Its strength and greaseproof qualities have also, of course, popularized vinyl as a coating or lamination for closure liners.

Rigid and molded plastics

Although this article is concerned mainly with the flexible materials, it would not be fair to leave the subject of plastics without some mention of the important role played—in comparatively special and limited fields—by the rigid sheet and molded plastics in packaging.

When it is produced in thickness of 5 mils and more, acetate loses the flexible qualities of film and becomes a semi-rigid sheet—hundreds of thousands of pounds of which have been produced in the last 25 years for the manufacture of completely or partly transparent boxes. Originally restricted by cost to gift and luxury items, new techniques—including an automatic machine

NOTABLE ACHIEVEMENT in films was development of the squeeze-color pouch for oleomargarine. For this application, vinyl plasticized with nitrile rubber was used.



* See "A Look at the Vinyls," MODERN PACKAGING, Feb., 1952, p. 79.



PHOTO COURTESY MINNESOTA MINING & MFG. CO.

ALUMINUM FOIL lamination makes heat-sealed pouch that delivers sterile surgical dressings ready for use.

PAPER COATED with polyethylene is used alone or combined with foil for many moisture-protective requirements. It is an important recent coating development.



for making transparent set-up boxes and a method of making a transparent folding box—have recently extended the merchandising appeal of this type of container to low-cost products. Although acetate has the lion's share of this market, oriented polystyrene, ethyl cellulose and some vinyl sheet have lately been used for special purposes.

Molded plastic containers also have created a new consciousness of packages of more than transitory value. Here low-cost polystyrene has come to the fore, in both opaque and transparent forms, although acetate is perhaps equally important and butyrate, polyethylene and the thermosetting plastics also are used to some extent. Because of cost, molded plastic containers usually are restricted to the "presentation" type of gift case, as in jewelry, or to applications where they have long use or re-use value. However, there are notable exceptions, such as the Gillette razor and blade boxes of polystyrene, which are used in the millions yearly.

More on plastics and other materials in their end-use forms in packaging will be found in the article "Package Forms" in this section (p. 130).

Aluminum foil

Ranking along with the transparent-film developments in this 25-year era, both in significant contributions to the art and science of packaging and in economic importance, has been the development of aluminum foil.

Making its first appearance from the rolling mills of Alcoa in 1914, aluminum foil quickly established in packaging its superiority to its older brothers—tin and lead foil. Cheaper, lighter, more brilliant and more usable, it had already taken an important position among packaging materials by the time of World War II. During the war, it became probably the most important of all of the flexible materials.

In the very year that MODERN PACKAGING started, Reynolds Metals Co. launched a large-scale program of aluminum-foil manufacture and thereafter did much to point the way in improved printing and fabricating processes for foil packaging.

While plastic films and coatings could provide highly resistant barriers to moisture, only foil could be truly classed as a "moistureproof" flexible material; unless it finds "pinholes," water-vapor simply cannot penetrate this material. In addition, unlike most other materials, time and temperatures have no affect upon aluminum's protective properties. No wonder, then, that aluminum foil has become the most widely used of all flexible materials where maximum protection against humidity is demanded. While generally used in combination with other materials to give it additional strength and heat-sealing properties, it is also effectively used as a single, unsupported, greaseproof wrap for many military items.

From its inception, the protective packaging qualities of foil were quickly recognized. In the tobacco, candy and cheese industries, particularly, it immediately assumed a prominent position—giving protection that could be obtained through no other means so cheaply or so attractively. Soon, as in the case of cellophane, printing inks and processes were perfected to enhance its brilliant reflectivity and it was not long before foil in gauges down to 0.00035 in. was being selected for its selling punch on innumerable products not requiring protective qualities.

Soon, too, adhesives and coatings were developed to make foil one of the easiest to handle and most useful of materials in laminated structures. Today foil is seldom used commercially as an unsupported packaging material except in the now familiar kitchen-roll form. Most commonly, it is combined with paper, but a new

trend—especially since the war—is to find new fields of usefulness in combination with plastic films, and wax- and resin-type coatings to add strength and heat sealability, to protect the printing and to permit its adaptability to high-speed packaging equipment.

Other materials

Among the older forms of packaging materials, the period of 1927 to 1952 has generally been devoted to constant improvement in the product and in the manufacturing processes, equipment and techniques, and to tremendous increases in production capacity, rather than to spectacular new developments in the materials themselves.

The most marked technical development in the paper field probably has been the emergence of kraft wrapping paper to a position of dignity as a quality packaging material of fine appearance, whiteness close to the best of the sulphites and rag bonds, and high printing quality. Functionally, the chief advance has probably been in the development of high wet-strength paper; new fields have thus been opened for paper liners, bags and wraps, and certainly for multiwall bags subject to outdoor storage or export shipment. Also, it must be remembered that many of the applications of the newer materials discussed above would have been impossible except through combining the film or foil with paper and the paper industry has kept pace by developing and producing papers especially adapted to the requirements of laminating and coating.

Similarly, carton and container boards have progressed greatly since the 1920s. Printing surfaces are far superior and permit reproductions and brilliance unattainable before. The chief functional advance has been the war-borne development of V-board—solid fibre or corrugated board that is capable of withstanding unbelievable punishment from the weather without appreciable loss of burst or stacking strength. While V-board was generally felt to have been a "war baby" with an extremely limited civilian market, it has been interesting to note that domestic demand has been above expectation and appears to be increasing, especially for the modified V-board known as VUS. Substantial potentialities are being developed for the V-board containers as replacements for wood-type boxes wherever water is an important hazard, as in storage of meat and other perishable items under refrigeration and in the shipment and the storage of fresh fruits and produce.

A happy marriage has been celebrated between the wood and paper industries in the combining of veneer board and kraft paper to replace plywood. The first of these was "Craveneer," developed by the Chicago Mill & Lumber Co. late in the war. The bonding of kraft direct to the veneer as it is peeled from the log results in material of exceptionally high strength at a remarkably low price.

So brief a review of so large a field during so important a period of its growth is bound to be incomplete. Great advances have been made in metal container materials; the "light weighting" of glass as in the single-trip bottle may well boost the glass industry to even greater heights; the story of the paper milk containers—a development of this same period—should include a chapter on materials; the contribution of sheet and molded plastics has been too briefly touched upon; cap-liner materials have undergone profound improvements; very little has been said about new coating developments . . . all these and many more must command the eventual historian's attention.

But all, by and large, simply underline the basic thesis that during the years of the second quarter of this century, a new conception of packaging has evolved. Packaging has assumed a mature and important position in our industrial world—the value of its materials and services increasing into the billions of dollars—and has a history full of solid achievements and a future of enormous promise.

VUS BOARD, commercial version of V-board, makes a tough fibre container acceptable for export shipments.



PHOTO COURTESY ROBERT GAIR CO., INC.

ANNIVERSARY 25

25 years of progress in . . .

Package forms

Beauty and utility in new kinds of packages—new materials, new functions—have helped lead America to better living

From the merchandising viewpoint, the real proof of packaging's gains lies in today's vast array of new and better, more convenient, more protective, more economical package forms, representing the end result of a quarter of a century of progress in materials and methods.

Long before 1927 there were boxes, bags, cans and bottles, just as there were airplanes before Lindbergh flew the Atlantic (the year MODERN PACKAGING was born). But the variations and new conceptions of these basic structures found today are as far removed from the 1927 models as are today's Constellations, Superforts and jets from the *Spirit of St. Louis*. And, if not quite so dramatic in incident, new packages have had, in their own way, a vastly farther-reaching effect on the daily life of every American.

One has only to think of such developments as the disposable paper milk container that does away with the collection of empties and has opened up broad new markets for dairy products through the retail store . . . the molded plastic container that has revolutionized the packaging of entire industries from razor blades to watch bands, and its cousin, the fabricated-from-sheet transparent box which has given glamour to thousands of products . . . the multiwall bag that has taken over hundreds of heavy-duty packaging jobs, and its little sister, the duplex or laminated bag in consumer sizes which has helped to give longer shelf life to the paper bag and put it on a competitive footing with other types of protective containers . . . the tiny single-dose or single-application unit package in strips, or singly, filled and sealed mechanically by the hundreds per minute . . . the decorated, thin-lip glass containers with side-seal closures that demonstrated the possibilities of re-use packaging . . . the one-trip disposable beverage bottle, dramatically capping 25 years of progress in making glass containers ever lighter and stronger . . . the hundreds of ingenious combinations of flexible materials, which have advanced so far that they can now provide a vacuum-tight or gas-tight flexible package at low cost . . . the sensational polyethylene squeeze bottle that in a half-dozen years has become a standard package form . . . the pressurized or aerosol cans that, with the push of a button, will produce fluffy whipped cream on your dessert, lather shampoo for your hair or a spray to kill mosquitoes.

All of these were unknown in 1927. And these, of course, are only a few highlights of the succeeding years.

To this list might be added another group whose *raison d'être* sprang solely from merchandising trends; the multiple package containing related or similar items to encourage the larger unit sale, such as the multiple candy-bar package or the nail polish and lipstick combinations in the toiletries field . . . its opposite, the fractional package such as the 4-in-1 cracker package —four ¼-lbs. wrapped separately but enclosed in a single carton so that the housewife may use one of the units while the other three remain



FOUR BASIC CONCEPTIONS of a quarter of a century of packaging are embodied in one tiny 5-cent package: window carton, cellophane wrap, tear tape, dispenser.

sealed and fresh . . . and such forms as the paperboard beverage carrier, encouraging not only the multiple-unit sale—say, six bottles of Coke or beer—but the take-home purchase in the absence of delivery service.

The first of the newer package forms 25 years ago were those made of paper. About 1925, a new method for sewing paper bags had been developed, permitting the combining of a number of plies to give the necessary flexibility and strength to these heavy-duty containers. Later, the plies began to be selected of different materials tailored to the use requirements of the products. By 1935, the multiwall paper bag was reported to have developed 300 uses for products from liquid asphalt to all manner of chemicals, animal feeds, building materials, fuel, explosives, fertilizers and many others. Today the uses have trebled.

Paper milk containers

Paper milk bottles were introduced in New York City by one of the largest distributors of dairy products early in 1929 and within a year Sheffield Farms was delivering them to more than 1,500 stores. Between Borden and Sheffield, it was estimated that 40,000,000 of these paper packages of milk were consumed in 1930. The manufacturer of these containers was the American Sealcone Co.

American Can Co.'s flat-top paper milk container appeared in 1934. Prominent in the development of the paper milk container has been the Ex-Cell-O Corp., for its leased equipment to make containers, and Sealright, for its vinyl-coated milk containers.

The beginning of the '30's saw the phenomenal rise of the cellophane package. It was an age of transparency; every packager was trying during the days of the depression to capture the scarce consumer dollars with intriguing new packages which took many new forms as a result of cellophane and acetate film, also just beginning to come into use at this time—the now-familiar tray overwrapped with transparent film, the window carton and the window bag combining the low cost of paper with the advantage of visibility. Illustrations in MODERN PACKAGING in 1933 show photos of Hickok suspenders and Beechies candy-coated gum in cartons with transparent windows. Thomas M. Royal Co. developed a transparent window bag which was described in MODERN PACKAGING in March, 1928.

Plastics packaging

The '30s were heralded as "The Plastic Age," with glowing predictions of the uses for these new wonder materials coming out of the test tube. Plastics first entered the packaging field



AEROSOLS—the package evolved from the Army's bug bomb and the pressure-holding beer can—now have hundreds of uses for foods, toiletries and household sprays.

THE SQUEEZE BOTTLE boom of 1947 was one of the most dramatic incidents of volume production at lower cost.

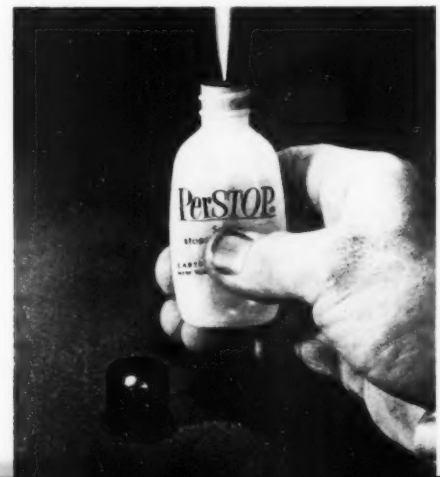
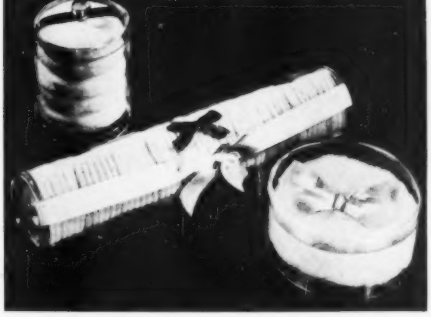
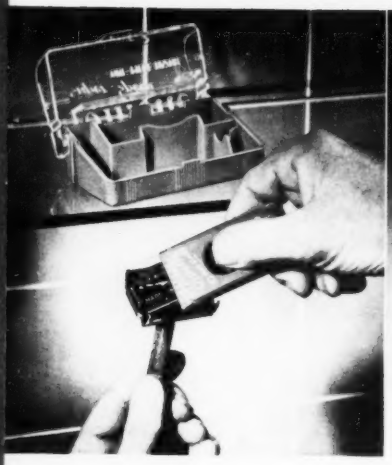


PHOTO COURTESY CELANESE CORP. OF AMERICA.



CIRCA 1934—early drawn and fabricated transparent acetate boxes, practically unheard of before the '30s.





GILLETTE BLADE dispenser and Borden's molded transparent cheese box demonstrated that plastics packaging could take its place beside other packages as economical packaging media.

on a mass-production basis in the form of molded closures for bottles and collapsible tubes. The Silver Anniversary Issue of *Bakelite Review* (Oct., 1935) reports that the very first Bakelite molded closure made its bow in 1920, when the William G. Mennen Co. was experiencing considerable difficulty with the corrosion of metal closures and placed an order for a million plastic caps at a price representing a substantial premium over the closures previously used. By 1934 an estimate placed annual production of plastic closures at 500,000,000. The total for 1951 was nearly six times that figure. The repeal of Prohibition in 1933 increased tremendously the demand for plastic closures, as did the increasing number of over-the-counter drugs, toiletries and household products introduced during the '30s. Today there is scarcely a kitchen cabinet or bathroom shelf that does not disclose numerous packages with colorful plastic closures. A necessary corollary to the development of plastic as well as metal screw caps was the development of improved cap liners—a matter that has engaged some of the best technical minds in packaging during the last 25 years.

The American Safety Razor Co. was using a molded plastic container as early as 1924. It was during the early '30s, however, that this new package form really began to take hold. In 1930 a large manufacturer of cosmetics introduced a new manicure set with all items mounted in a molded plastic tray. Its success was such that other manufacturers began to seek the obvious advantages of the new form: permanent re-use features for the consumer and counter-display appeal for the dealer. Molded plastic gift pack-



DECORATED cheese glasses with the side-seal closures have proved beyond a doubt the effectiveness of re-use containers to win friends and sales.



FIRST BEER CANS were used commercially by the Krueger Brewing Co. These cans appeared shortly after 1935.



ONE-TRIP. no-deposit beverage bottle was result of the light-weighting of glass; kept glass industry in competition with beer cans. Labels are moisture-resistant foil.

ages began to blossom forth for belts, buckles, garters, jewelry, razors, watches, perfumes, face powders, fishing gear and many other products.

It was the tiny dispenser package for Gillette razor blades—now running into the tens of millions annually—that not only changed the entire packaging pattern for razor blades, but demonstrated that the molded plastic container could take its place on a solid footing with other types of packages as an economical, every-day packaging medium.

The formed transparent box

Practically unheard of, too, before 1930 was the rigid transparent container, formed or fabricated from plastic sheet materials. Knowlton Shaw, Jr., recalls the day early in the '30s when a salesman for Celanese (then the Celluloid Corp.) brought the first samples of acetate sheet to his father at Shaw-Randall Co. in Pawtucket, R.I., to interest him in making such packages. The first fabricated rigid-transparent container to win recognition in a MODERN PACKAGING All-America Package Competition was a rectangular box for Pioneer garters, introduced sometime during 1934, which was made by the See-Through Container Corp., with colorful printing credited to Shellmar Products. The appeal of the transparent box—aptly trade-named by one producer, Central States Paper & Bag Co., the "Showbox"—was recognized quickly and all kinds of products began to appear in these "see-through" containers—cosmetics, textiles, toys, novelties, infant's items, sterling silver, confections, jewelry, tools, fishing supplies and hundreds of others. Continually improved methods for quantity production have steadily brought prices down to a point where these containers have been economically feasible for a wider and wider range of application.

The beer can

Many important new package forms, however, have not depended on new materials, but have made use of the old standbys. Makers of metal and glass containers have kept step continually with new concepts to meet new requirements. Shortly after Repeal, the can companies began interesting brewers in cans specially developed for beer. Exhaustive metallurgical studies were conducted to produce a can capable of withstanding the high pressure of beer during pas-

THE PAPER BAG came into its own as a packaging medium due to new constructions giving longer shelf life, improved methods of filling and better dispensing means.



teurization and plastics were called upon to provide protective synthetic-resin-base linings. American Can's first commercial application of the beer can came in 1935, at the Krueger Brewing Co. in Newark, N.J. This new container immediately met with wide favor because of its convenience in shipping, refrigerator storage, handling and its disposable feature.

Although experiments in the vacuum packing of coffee can be traced as far back as 1914, intensive efforts to provide an answer to the problem of preserving full flavor for mass distribution did not get under way until 1925 and it was during the '30s that the key-opening vacuum can for coffee really took hold. Paradoxically, too, the widespread use of the vacuum can was encouraged, in a perverse way, by the one firm which held out against it the longest. Chase & Sanborn's heavy promotion of its paper-bag "dated package" actually encouraged competitors in the adoption of the vacuum can, which, because it would preserve freshness indefinitely, did not have to be "dated."

Developments in the aluminum industry spurred the wide use of many new package forms, including the foil-laminated wraps, cartons and bags, which were seen only infrequently before the late '20s. New, too, in the aluminum category was the rolled-on aluminum bottle closure, including the famous tamperproof feature used on the Gilbey Gin bottle and many others. Since World War II, the tray pack of aluminum sheet has been gaining wide favor for precooked frozen-food items and, very recently, for baked goods.

With the advent of World War II, the great packaging effort was directed either to the protection of military supplies or to the development of substitutes for scarce materials. Out of military packaging came the weatherproof fibreboard V-board box and the method of preventing corrosion by the use of a desiccant within a water-vaporproof package, known as Method II. The civilian sequel to the latter development is a very recent technique for prolonging the freshness of potato chips, crackers, confections and other foods.

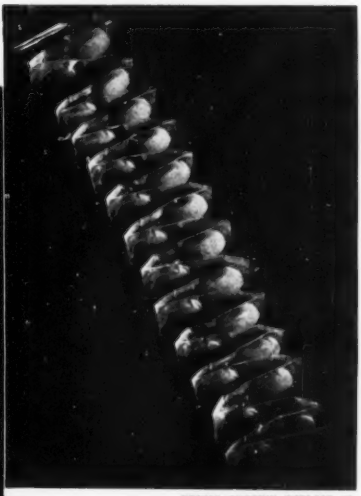
The aerosol package was a direct result of World War II. It first appeared about 1942 as the Army's famous "bug bomb," a very heavy and expensive steel container, but in its redesigned form—an offshoot also of the pressure-holding beer-can development—has since revolutionized civilian packaging of such things as household sprays, insecticides and paints, as well as foods and cosmetics. One of the first civilian applications was a pressurized perfume container adopted by Daggett & Ramsdell for its Gay Manhattan perfume in 1946.

Light-weighting of glass

The glass bottle is as old as antiquity, but the commercial glass containers of today are as different from those in use in 1927 as today's automobiles from the Model T Ford (which also was still being built in 1927). During the late '20s

UNIT-STRIP packages were first made of paper (right). Flexible films and high-speed production brought many improvements in single-dosage packages now so widely used for tablets, powders and pastes.





PHOTOS COURTESY IVERS-LEE CO.

APPLIED CERAMIC labeling has added beauty to glass containers and provides permanent identity that won't wash off.



PHOTO COURTESY OWENS-ILLINOIS GLASS CO.

FLEXIBLE MATERIALS have advanced so far they now offer low-cost vacuum or gas-tight packaging.



PHOTO COURTESY STANDARD CAP & SEAL CORP.

and '30s, glass-container research did much to lighten the weight of glass, yet retain its strength through tempering and the design of shapes to withstand a high degree of stress and strain. As a result—and partly due to World War II shortages of metal—the glass package has become widely accepted as a container for hot-processed foods and hundreds of other products not previously in glass. Through the light-weighting development, too, came the one-trip, no-deposit beverage bottle—which kept the glass industry competitive with the beer can.

A significant development of the glass industry has been applied ceramic labeling, fused on the bottle, providing permanent identification for bottles that must withstand refrigerator storage and eye-appealing decorative treatment for glass containers used in the toiletries, drug, food and other fields. For re-use bottles, as in the soft-drink industry, it of course has the important advantage of obviating the washing off of old paper labels and the application of new.

Impressive during the last 25 years has been the growth of that distinctive package form known as the "unit package"—the tiny mechanically sealed packet, either single or in a strip, to hold an individual dosage or application of product. The original strip packages patented by the Ivers-Lee Co. as Sanitape in 1919 were first made of paper and replaced the old type of paper folds for medicinal powders and tablets which druggists used to put up by hand. In 1933 these packages were first made of cellophane, whose heat-sealing properties greatly aided in high-speed production methods Since that time there have been many improvements and varia-

THE FRACTIONAL PACKAGE—several separate smaller packages packed in a larger one—is new merchandising idea. One may be used while others stay sealed and fresh.

THE MULTIPLE PACKAGE—containing similar or related items—is powerful new medium to increase the unit sale.







PHOTO COURTESY ROBERT GAIR CO.

PAPER MILK CONTAINERS, introduced in New York City in 1929. This fibreboard shipping case for milk is a weatherproof box developed as a result of the VUS box.

tions in constructions and in the equipment for making, filling and sealing these packets automatically by the hundreds per minute.

The unit package has become a universally accepted form for the packaging of drugs and capsules in a variety of packaging films and film combinations tailored to specific requirements. This form of package also has been used to package everything from dry yeast to hypodermic needles.

The rapid succession of new package forms since the last war indicates the many developments that were in laboratory stage, only waiting for the time when materials and equipment for producing them were available.

The unbreakable polyethylene bottle had its first commercial application as a non-corrosive container for laboratory chemicals some time in 1946.

The first application in the consumer field reported in MODERN PACKAGING was a "puffer" bottle for talcum powder introduced by Alexandra De Markoff in the summer of 1947. First to use the polyethylene bottle as a strong merchandising tool backed by extensive advertising of the squeezable features was Jules Montenier for his "Stopette" spray deodorant during the same year. His adoption of this new package form was one of the most striking examples of a company pioneering an intriguing new form of package, despite original high costs, and rising quickly from the bottom to near the top of its field. Within a matter of months, every important competitor in the deodorant field was forced to adopt a similar package and this took the "squeeze" bottle almost overnight into volume production, lower cost and thence into applications in dozens of other fields.

A boon to packagers using overwrapped trays was the postwar introduction of the lock-tab type of tray, with automatic equipment for setting it up. The construction gave a strong, rigid tray without any use of glue, greatly simplifying and economizing on in-plant set-up. This new form of folding tray and the machine for setting it up soon became standard equipment in hundreds of plants packaging produce, meats, bakery products, confections, etc.

The flexible vacuum pack was first adopted by Armour & Co. for bacon in 1948 and is now being used not only for bacon, but other prepackaged meats, cheese, etc. Similar flexible packages are used to hold dry yeast in an atmosphere of inert gas. From a technical standpoint, the development of a flexible material that can be filled and sealed to hold a vacuum or a gas is





PHOTO COURTESY ATLANTA PAPER CO.

TAKE-HOME CARTONS in many forms have pointed the way for promoting the multiple-unit sale and also the carry-home purchase in the absence of delivery service.



PHOTO COURTESY SEAL-SPOUT CORP.

THE METAL POURING SPOUT on cartons is one of the many convenience devices to make packages easier to use.



PROTECTIVE FEATURES have been improved by closure devices such as shrink-seal band for tamperproof package.

one of the most significant in the last 25 years of packaging.

Still other package developments that deserve mention under new package constructions are the many convenience devices that have been added during the last 25 years: efficient metal spouts such as are now inserted in paperboard cartons for household cleansers and soaps, making them easy to pour; the Delta-Seal closure, patented by Bemis Bro. Bag Co., which provides a convenient paper spout for small-sized flour and sugar bags; the functionally designed self-dispensing cartons for such products as facial tissues; the cellophane tearing tape that started its career on Wrigley's gum and was later adopted for cigarettes; the twin-pack for bread and many others.

Applicator closures

There have been numerous improvements in applicator closures—improved dispensing devices for lighter fluids, lubricating oil, glues, pastes, etc., as well as the push-button dispensers for hand lotions, window cleaners, etc., most of them new since 1927. Also there are examples of brush applicators affixed to the inside of plastic closures, such as Cutex first adopted in 1934—eliminating the need of a carton to hold the brush in the package. There is the new Cutex spillproof bottle achieved by the use of a polyethylene plug that prevents a high-viscosity product from flowing through a relatively small opening in the mouth of the bottle.

In connection with closures, there have been important improvements in protective features, such as the widely used Cel-O-Seal band and the primary closure known as Filma-Seal.

It would be impossible to mention every worthwhile package form introduced during the last 25 years, but we have tried here to point out a few highlights—some of the broad influences which have started new trends and new ways of doing things. Between the lines are the years of toil and struggle, a little of business romance and success—and a tribute to the many minds which, along the way, have contributed to these achievements now so inseparably woven into a quarter of a century of American business history.

METHOD II PACK—a desiccant within a water-vapor-proof package—grew out of problems of military packaging to prevent corrosion, now has many civilian uses.

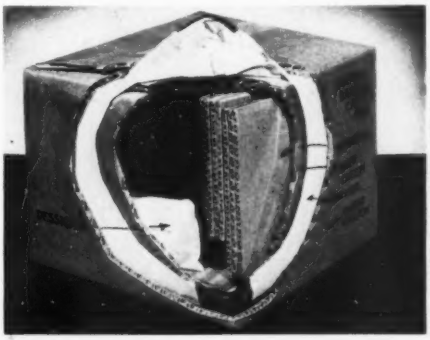


PHOTO COURTESY B. F. GOODRICH CHEMICAL CO.

25 years of progress in . . .

Packaging machinery

ANNIVERSARY 25 1920-45

Great expansion of consumer packaging has been made possible by cost-cutting mechanical advances.

By GEORGE A. MOHLMAN

Twenty-five years ago most consumer products were still packed in barrels, bags or wooden boxes. If cartons were used, as for cereals, they were set up and often filled by hand and a dozen of these would be packed in a wooden case. Commodities like sugar, flour, beans and similar items were still frequently packed in barrels and sold from barrels.

Through the next 10 years, continuing demands of consumer-goods manufacturers gradually resulted in improvement of individual packaging machines and development of new unit-packaging machines, making possible the trend to consumer packaging as we now know it today.

ONE OF THE MOST WIDELY USED packaging machines today is the Pony Labelrite, introduced at AMA Packaging Show in 1936. It set new standards in precision labeling.

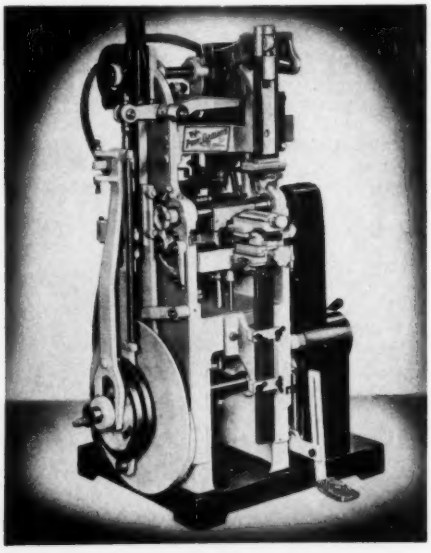


PHOTO COURTESY NEW JERSEY MACHINE CORP.

Then with the advent of World War II the packaging machinery industry had the tremendous responsibility of producing machinery for packages of all kinds which not only must be protected from the elements, but must be produced at a higher speed than any considered possible up to that time. Labor shortages created ever-growing pressure for mechanization of all packaging.

It is to the credit of the industry that they met this demand, in spite of critical shortages of normally plentiful materials, with far-reaching effects on postwar packaging.

The war also stressed the utility value of a package in contrast to sales appeal. The package had to carry vital materials and products to the far corners of the earth and to protect them until they got there. Not only were the speeds of individual machines increased, but the whole sequence of mechanical operation had to be tied together in order to achieve a continuous flow of products. The ingenuity of some of the conveyor manufacturers in solving this problem was extraordinary.

During the war period and particularly after, increased labor costs and record production had a most important effect on the demand for speed. Of course, with speed, increased efficiency was also required, because what the machine user wanted, after all, was higher and higher production at lower cost and unless the machines were efficient, great speed was of no use.

It would be impossible in this brief review to take up all of the changes and the significant new types of equipment that have been developed in the last 25 years. Probably the best way is to discuss general trends by classes of products.

The packaging of dry products such as flour, coffee and similar items by machinery was pioneered years ago by Pneumatic Scale Corp., Stokes & Smith, Battle Creek and others. During

IN DAYS OF OLD

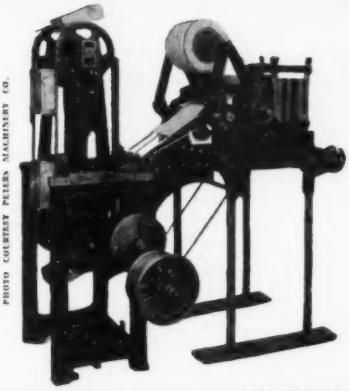


PHOTO COURTESY PETERS MACHINERY CO.

EARLY MODEL of Peters carton-forming and lining machine, introduced in 1929. It has become a standard machine in the crackers, shortening and frozen-foods fields.

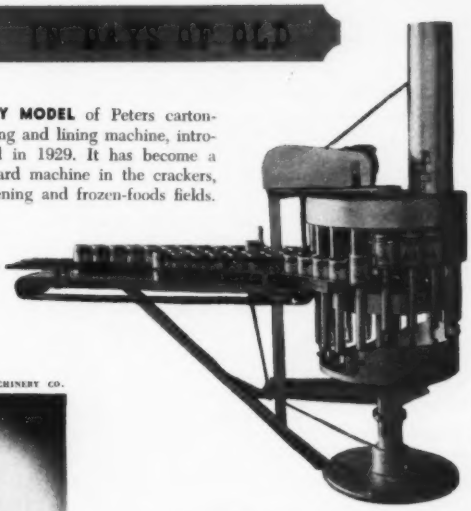
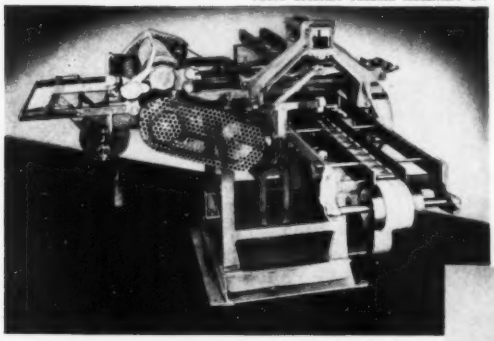


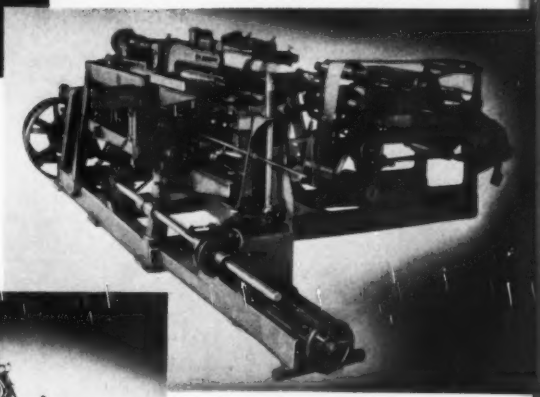
PHOTO COURTESY J. L. FERGUSON CO.

PHOTO COURTESY PACKAGE MACHINERY CO.



PACKOMATIC telescoping volumetric filler looked like this in 1938. Improved models fill dusty semi- and free-flowing materials.

PHOTO COURTESY M. H. KNOWLTON CO.



FIRST MODEL FA cellophane wrapper was shipped in March, 1935, to the Gibson Playing Card Co.

CONVOLUTE CAN WINDER made possible expansion of packaging in fibre cans. This is a 1934 model of the Knowlton machine, first introduced in 1930.

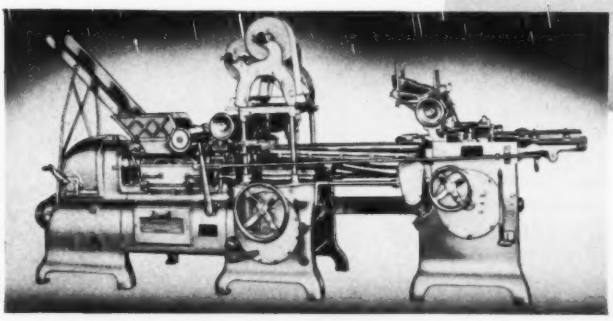
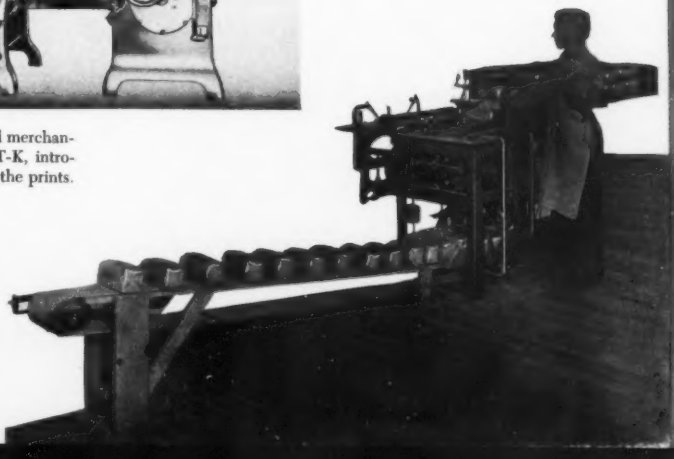


PHOTO COURTESY LYNCH CORP.

MORPAC MACHINE facilitated packaged merchandising of butter and margarine. Model T-K, introduced in 1940, forms, wraps and cartons the prints.



BREAD WRAPPING was a new idea when this pioneer of the Hayssen line was installed in 1910. Then loaves were wrapped upside down; went down on elevator; were discharged on conveyor that now would be infeed.

PHOTO COURTESY HAYSSEN MFG. CO.

THE AUTHOR, George A. Mohlman, has observed the mechanization of packaging over a period of 32 years, 31 of which he spent with Package Machinery Co., the largest company of its kind in the packaging field. Retired with honors last year after rising to president and chairman of the board of Package Machinery Co., he is now, at the age of 71, starting his second career in the field. He recently announced the formation of the firm of Mohlman & Reis, Inc., to be designers of special machinery for the packaging field. Always a leader in the machinery group, he has been active in the Package Machinery Manufacturers Institute and the Packaging Institute.



the 25-year period in question, as far as I recall, there were no radical changes in design of the machines. But there were many refinements which increased the speed and efficiency of existing machines, particularly in the elimination of cams and other rough motions. New companies also entered the field during this period and stimulated competition by their improved designs.

One of the results of the perfection of filling machines was a distinct change in the product itself. Soap is an example. The invention of granulated detergents and washing powders necessitated the handling of these by carton set-up, filling and closing machines. Soap in bar form has now almost disappeared, except for the cakes we still find in bathrooms and hotels and sleeping cars.

Accuracy in weighing became more and more important. Expensive products, such as coffee and drugs, required scales accurate to within a fraction of a gram. These are now available, whereas 25 years ago if the merchant who weighed these products out in bulk had a simple scale he was lucky and so was the customer.

Only recently have irregular, fragile articles such as potato chips and crackers been accurately loaded into cartons and packages. Companies like Battle Creek, Stokes & Smith, Triangle and Wright Machinery, along with others, have succeeded in answering this demand for accuracy and speed.

As for liquids, 25 years ago if a bottle was more or less filled to a line or mark, that was good enough. Since then, speed and accuracy have increased. Many filling machines have been developed to run at speeds of 300 a minute on such items as beer, Coca Cola, liquors, syrups and drugs of various kinds. U.S. Bottlers Machinery, Horix, Elgin and Pneumatic have been instrumental in the development of various types of filling machines which answer the requirements of the liquid packager.

After these liquid containers had been filled, the next job was to close them. Whereas 25 years ago a cork was still commonly used, we now have automatic capping machines which automatically close bottles with metal or plastic caps at very high speed. These capping machines must keep up with the filling operations, or they are out of luck. The same is true of labeling. In 1927, labeling machines generally were poor in performance and slow. This was not always due to the machine itself, but to inaccuracy in cutting and quality of the label stock.

Again, as the speed of the fillers increased, the labeling operations had to keep up and all materials had to be perfect to accomplish this result. For example: glue which could be used successfully at these high speeds had to be developed and the improvement here had a lot to do with labeling-machine performance. People like Potdevin, Burt, Standard-Knapp and New Jersey Machine were all involved in improvements in the development of labeling machines.

Where non-re-use or one-shot containers are used, the thermoplastic label has recently gained attention. New Jersey Machine Corp. developed

TEA-BAG MACHINE is an example of highest development of packaging-machinery art for specialized, high-speed production. This machine, produced in 1945, was first to use heat-seal material. Tag-attaching unit was added later.

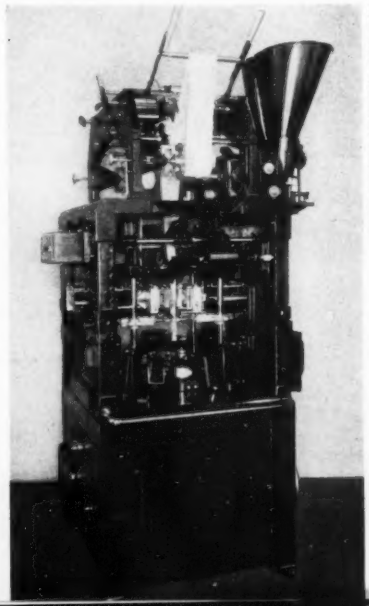


PHOTO COURTESY PNEUMATIC SCALE CORP.

the first thermoplastic bottle-labeling machine about six years ago. The bread-wrapping companies such as the American Machine & Foundry, Oliver and National Bread produced machinery for applying thermoplastic end seals to bread.

In the filling of viscous products, different types of machines are called for. Twenty-five years ago all such items, including ketchup, syrup, grease and creams, had to be filled by hand.

A word should be said about tube filling for products like tooth paste and shaving cream. Tube making and filling went hand in hand. As filling speeds increased, the tube manufacturer had to keep step and strengthen and standardize his tubes. In the early days neither aluminum nor plastics were thought of for tube-making use. Now both are in use and as their cost comes down more of these materials will be used.

In the early days I remember selling cartoning machines made by the F. B. Redington Co. This was some 25 years ago, and while the machines performed, they did demand extreme accuracy in the carton blank itself and in many cases the carton manufacturer could not give the accuracy demanded and often the machine was blamed for something which was not its fault.

Here again it was a case of compromise. The carton machine had to be able to take almost any kind of carton and the carton manufacturer had to increase the accuracy of his blanks or lose the business. Redington and R. A. Jones were the leaders in the cartoning-machine business in the early days and still are. They are keen competitors and in the 25 years in question their methods of design have changed from intermittent to continuous motion and their new-type cartoning machines are now adjustable for different-sized products and packages.

In the early days, carton stock was of poor quality and finish, and the result was that wrapping machines were needed to cover the carton after it was sealed and give the package an attractive, salable appearance. Where printed cartons were used, they were often wrapped in waxed paper. Early design principles of Fisher, Campbell, MacDonald and others have been refined or replaced by modern machines such as those produced by Battle Creek, Hayssen, Oliver, Package Machinery and others who not only have developed satisfactory wrapping machines, but have also provided attachments for thermoplastic end seals.

The Peters Machinery Co. was a pioneer in the building of machines for setting up and lining folding cartons with waxed or glassine paper. Originally, these were used largely by the cracker and cookie bakers. When the frozen-food industry came along, shortly after 1927, the Peters

CAPPING MACHINES handle bottled products swiftly and surely. This rotary capper has capacity of 250 per minute.

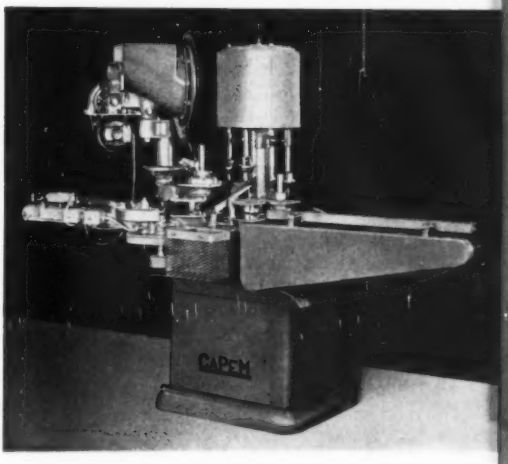


PHOTO COURTESY CONSOLIDATED PACKAGING MACHINERY CORP.

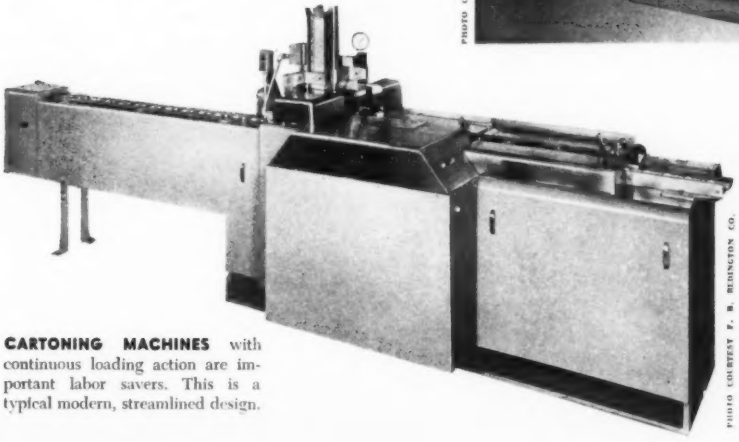


PHOTO COURTESY F. B. REDINGTON CO.

CARTONING MACHINES with continuous loading action are important labor savers. This is a typical modern, streamlined design.

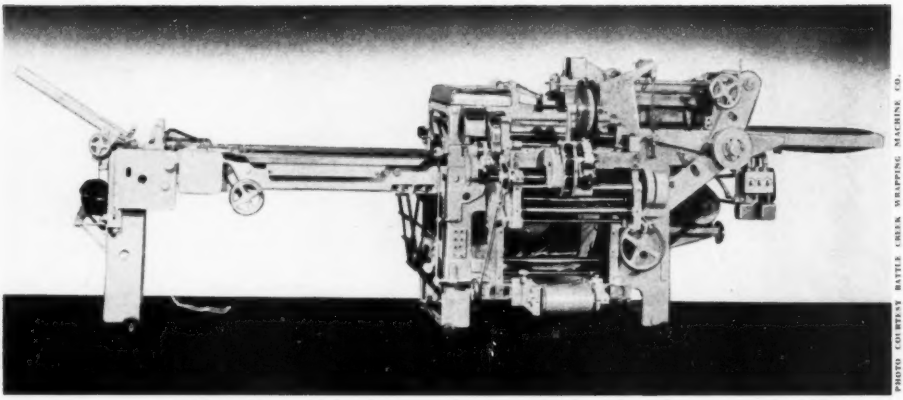


PHOTO COURTESY BATTLE CREEK WRAPPING MACHINE CO.

BAKERY WRAPPING, with the advent of cellophane, progressed from bread to practically every type of bakery item produced. This continuous-flow cake wrapper, which was first introduced in 1938, is illustrated in its latest model, equipped with card feeder and thermoplastic label feeder.

machine provided the ready-made answer to the need for lined cartons. It can be said that this machine influenced the whole development of packaging in this important new field. Recently, lard, shortening and other viscous products have been packed in Peters-type cartons.

While on the subject of filling we should mention the handling of pills, tablets and other small items which are counted and sealed into bottles or other containers. Formerly these articles were spread by hand over boards having 50 or 100 holes and then as the holes were filled the contents were released into the containers. Now there are several makes of ingenious machines available which will take tablets from a hopper, line them up and release an exact count into the package—all automatically and at high speed. Tea-bag making and filling was a revolutionary development 20 years ago. As I recall, there was an inventor named Dalton involved and Wright Machinery and Pneumatic Scale got into it just about concurrently. Eventually the development ended up in Pneumatic Scale's lap. Tea bags which were formerly made of cloth and sewn are now made of filter-type paper and heat sealed, with or without tags. The accuracy and high speed of these machines is amazing.

CASE-SEALING machinery has kept pace with almost universal trend to fibre shipping cases. Photo shows Standard-Knapp Model 429 bottom gluer from discharge end.

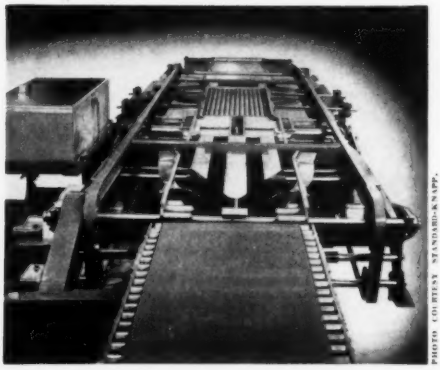


PHOTO COURTESY STANDARD-KNAPP.

The whole development of bag-making machinery is most significant. In the old days you saw in the shop nothing but bags made of kraft and these mostly in the grocery and drug stores. My memory goes back to buying candy in cornucopias. Later glassine bags came along and some time after that plain and moistureproof cellophane bags appeared. These later products and their manufacture opened an entirely new field of bag-making equipment.

Wrapping and bag-making machines called for winding and slitting equipment. This meant new business for companies like Cameron, Knowlton, Inman and others, as well as printers and bag-machinery makers. Many of the latter have started in the business fairly recently—people like Simplex, Roto-Bag and Amsco.

The printers of transparent materials found that they were missing a bet by not carrying through the operation to the making of bags. So naturally these printers got into the bag-making business as well. The big converting companies like Milprint, Shellmar and Dobeckmun grew out of this development.

The earliest bag-filling and gluing machine that I can recall was made by the Brown Bag Filling Machine Co., Fitchburg, Mass., and for years they had a monopoly on the filling of seeds and other small items.

One of the most noteworthy developments along this line was the introduction of the Transwrap type of machine which, in the packager's plant, takes cellophane or other roll material, printed or plain, forms a pouch and fills it automatically at high speed. The Transwrap machine marked one of the first uses of "electric-eye" control, to control the cut-off of printed material, and this and other electronic equipment has in recent years been a boon to packaging.

The Transwrap machine was introduced to the packaging world in 1937. In the next 10 years hundreds of these machines were installed in this country by Stokes & Smith, markedly affecting the trend to consumer-unit packaging. In 1947, following patent litigation, the name Transwrap and the rights to manufacture this machine for domestic as well as export sale reverted to the Transparent Wrap Machine Corp., the original developer and patent holder. The latter company now manufactures a Transwrap machine in several different models, while Stokes & Smith continues to make, under the name Stokeswrap, a machine similar to the original Transwrap, licensed under the same patents. This type of machine is widely used for such products as salted nuts, small candies, chemical powders, tea, coffee, etc.

Among the latest developments is a machine for making, filling and sealing square cellophane bags in 1- or 2-lb. units handling products like beans peas, sugar and coffee. This was developed by Shellmar Products Corp. and is now manufactured by Package Machinery Co.

The wrapping of bread has an interesting history. The early machines used waxed paper only and left much to be desired in the way of appearance because they had to handle an uneven article and at that time the wrapping material wasn't too good. Between 1930 and 1935, bread-slicing machines were perfected—and this threw a bombshell into the bread-wrapping machine fraternity. About the same time the Campbell machine, a pioneer in this field, was taken over by the American Machine & Foundry Co.; Baker-Perkins and Package Machinery bought an interest in the Sevigne development. Battle

TABLET COUNTERS and fillers have revolutionized such packaging in the drug and pharmaceutical industry. This typical example has a speed of 3,000 tablets per minute.

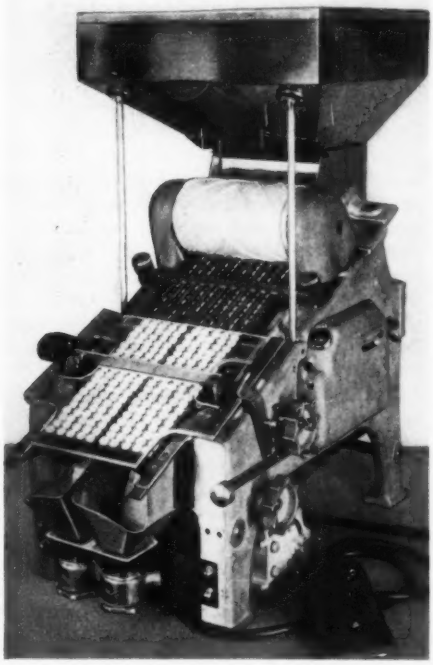
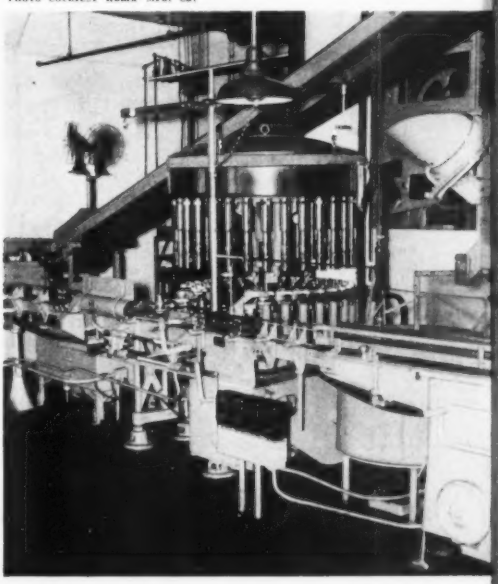


PHOTO COURTESY THE LAKSO CO.

PHOTO COURTESY HORIX MFG. CO.



LIQUID FILLING has reached a peak of efficiency in the distilled spirits industry. This high-speed gravity-vacuum filler, installed in 1938, fills 120 fifths of Gilbey's gin per minute; higher speeds are now possible.

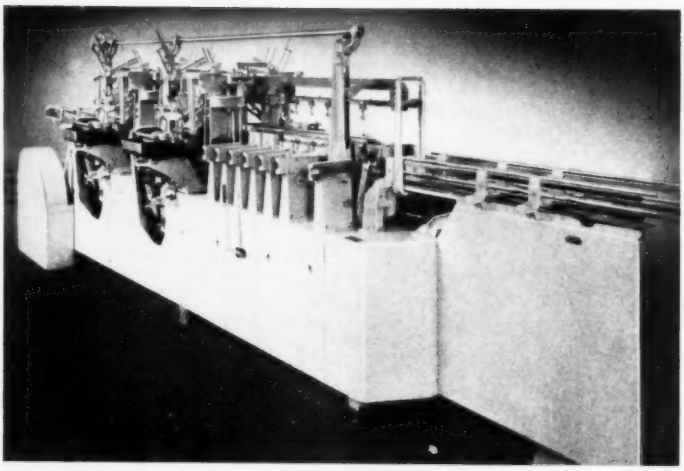


PHOTO COURTESY ECONOMIC MACHINERY CO.

BEE-LINE LABELER is familiar wherever high-production labeling is called for. The late model illustrated here is equipped with vacuum-grip label pick-up; was introduced in 1949.

Creek also developed a carton wrapper and made a bread wrapper of it, or vice versa. Later Oliver and Hayssen entered the field.

A new way of controlling sliced bread during wrapping had to be developed and in a short time it was a fact. Later, too, the bakers decided that they wanted to wrap some of their loaves in cellophane and here again the wrapping machine was up against new problems—but it delivered the goods.

Another important development in the wrapping of bread was the method of attaching thermoplastic end seals to make the end of the loaf more attractive and to assure a tighter fold and seal. These end seals were the forerunners of the thermoplastic bottle labels discussed previously.

Of course, we are all familiar with the use of moistureproof cellophane for the wrapping of cigars and cigarettes. In 1927 cigarettes were still wrapped in glassine and cigars were generally wrapped in foil. With the advent of moistureproof cellophane in 1927 and the increased protection it offered the product, the wrapping-machine manufacturers had quickly to develop machines to use it at high speeds. Package Machinery, Scandia and Redington all contributed to this art. This machine development paved the way for cellophane wrapping of perishables and the many other items handled by machine.

Packaging machinery has had an important role in holding down prices. Take chewing gum as an example. Here the development of high-speed wrapping and cartoning machines was necessary to enable the manufacturer to continue to sell his products at a nickel even when the additional protection of moistureproof cellophane increased his unit cost. Moisturepoof cellophane, however, did increase the shelf life of the product and added greatly to its salability.

One of the problems which confronted the users of heat-sealed cellophane was the difficulty of opening the package and the call was for an opening device which would facilitate getting at the contents. The cellophane tear-tape was developed. This again was a challenge to the machinery manufacturer for an attachment to apply the tape—and he again came through.

Since the advent and perfection of cellophane, other film materials such as Pliofilm, polyethylene and saran have been developed. Each of

PRECISION WEIGHING for light and fragile products such as potato chips and crackers was introduced with the Hy-Tra-Lec machine in 1946. It uses a new principle of weighing products, with hydraulic and electric controls.

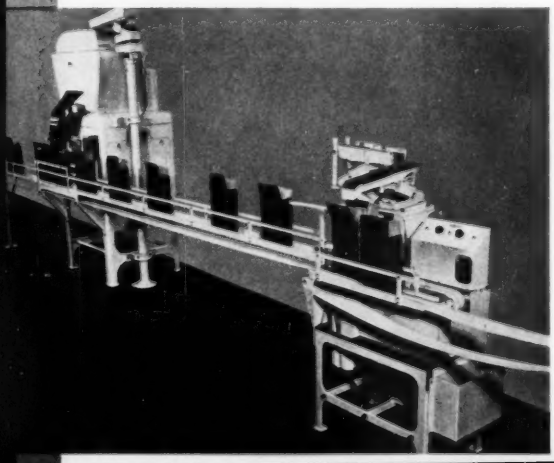


PHOTO COURTESY WRIGHT MACHINERY CO.

these has merit for certain purposes and its treatment by the machinery manufacturer differs in every instance and presents a separate problem. Suffice to say that within the last two years machinery has been developed that will handle these soft films about as readily as cellophane and the way is now open to their volume use.

So far we have been talking mostly about fully automatic machines of various kinds. During the last 25 years much progress has been made, too, in the perfection of many types of semi-automatic packaging machines where fully automatic machines are not warranted.

I believe that no revolutionary changes have been made in the last 25 years in can filling and sealing, except for a great increase in speed and methods of filling. Other containers made of fibreboard, however, have undergone many changes, due to the invention or improvement of machines for producing them. For example, in the early days boxes were almost universally glued and set up by hand. Later, semi-automatic machines were invented for doing the same thing and these were shortly replaced by machines which took the cut and scored blank, set it up and glued it at higher and higher speeds. People like E. G. Staude, J. L. Ferguson, Triangle and the New Jersey Machine Co. are a few who contributed to this development.

During the years, as the cost of labor gradually increased, labor-saving machines for jobs which were normally done adequately by hand at labor rates of from 35 to 50 cents an hour were called for. In the biscuit industry, bundles of 1 doz. cartons were collected and glued into kraft wrappers with end seals by hand. When the labor cost got up to 75 cents or $1 an hour, the manufacturer began to look around for ways of saving on these operation. Bundling machines were invented and the user found that they would pay out in from three to five years.

The same is true of machines for loading cans or bottles into cartons or cases after they have been filled. Machines here would show very little saving where the labor rate was around 50 cents an hour, but when it doubled that, machines for that purpose were in demand and were built by people like Standard-Knapp and J. L. Ferguson.

Manufacturers then began to look for other methods of cutting labor costs through packaging machinery and a series of other devices was developed. For instance, cans or bottles come from the manufacturer in cartons, are dumped on a platform and must be re-arranged so that they can be fed into the filling line in an orderly manner. This led to the development of "unscrambling" equipment—a word which describes it about as well as anything else. Preliminary operations, such as washing the containers or cleaning them by air, of course, have all been mechanized in recent years. Containers are now marched along through the filling, capping and labeling machines and in the end are automatically packed in the cartons in which they were received. This is probably the best example of a continuous mechanized packaging operation.

In conclusion, I must apologize for being so general in my story of the development of packaging machinery over the last 25 years. It would be impossible in an article of this scope to go into details of the hundreds of various types of equipment which are manufactured for different purposes. There is a romance about the development of each and every one of them—the trials of the various improvements as they were made, the cooperation of the packagers themselves in their striving toward labor-saving equipment and the constant progress toward better and more efficient packaging machinery.

REVOLUTIONARY was the package-making machine called Transwrap when it was introduced in 1937 by Stokes & Smith. It was the first machine to take flexible material from a roll, form it, fill it, seal it—all automatically and at high speed. Transwrap patents are owned by Transparent Wrap Machine Corp., which since 1947, has manufactured the machine under this name, while Stokes & Smith calls its machine of the same kind the Stokeswrap.

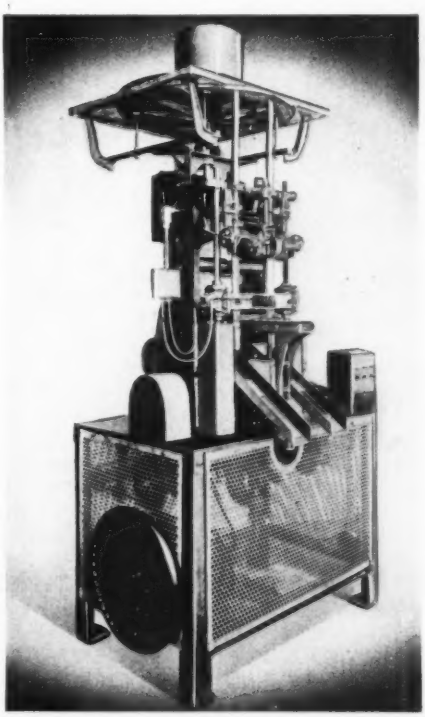


PHOTO COURTESY STOKES & SMITH.



PHOTO COURTESY OLIN INDUSTRIES, INC.

COLD-ROOM TESTING techniques were developed to meet the unprecedented requirements of frozen-food packaging. Here a pendulum-impact tester is being operated at minus 30 deg. F. in the new research laboratories of the Olin Cellophane Division, Olin Industries, Inc., New Haven, Conn.

25 years of progress in . . .

Technical knowledge

A new body of science has grown up in the development, testing and evaluation of packages. By C. A. SOUTHWICK, Jr.

The recognition and development of a distinct *science* of packaging has certainly been one of the most remarkable aspects of the growth of packaging itself over the last 25 years. For in 1927, when MODERN PACKAGING began, the package testing and development laboratory was almost unknown; there was no organized body of information on the technical aspects of packaging and there was no recognized medium for the dissemination of such information as did exist.

To be sure, the canners and the paper makers had found it advisable to employ chemists to perfect their processes and materials, and the fibre box people were beginning to recognize the engineering aspects of container structure. But these technicians thought of themselves as food process men or paper chemists or box engineers; there was no recognition of packaging itself as a common field of scientific endeavor with many basic, interrelated, technical problems.

Terms such as water-vapor permeability, seal strength and humidity equilibrium—the common yardsticks of package performance today—were unknown in 1927. Nobody called himself a packaging engineer and there was no place where people who performed such duties could meet to discuss common problems. Until the Technical Section of MODERN PACKAGING was established in 1943 there was no place where scientific achieve-

ments in packaging could be recognized and published apart from the general body of science.

Today, no responsible manufacturer would think of marketing a new product or adopting a new package without a thoroughgoing analysis of the materials and the package—in relation to the characteristics of the product—in his own packaging laboratory or elsewhere. Hundreds of package users, as well as suppliers, now maintain fully equipped laboratories for the development, testing, specifying and quality control of packages. By the use of standard instruments and test methods, these laboratories are able to predict the satisfactory shelf life of any product in any given package.

What has come about is a remarkable broadening of viewpoint on packaging, with, at the same time, a remarkable integration of what was previously a scattered and disorganized field.

Whereas, when this magazine began, packagers were occupied almost wholly with the merchandising aspects of the package (i.e., surface appearance), they have now come to realize that there are two equally important legs on which all packaging must stand: (1) adequacy as a sales instrument and (2) adequacy as a functional container that will preserve the quality of the product not only long enough to get it to market, but through shelf life and consumption—with convenience and economy. The term "packaging engineer" is admittedly a loose one, applicable to widely differing jobs requiring widely varying training and talent. But the fact that it is widely used today and that the necessity of engineering a package is universally accepted is a measure of the technical progress of the last quarter-century.

Roots of the growth

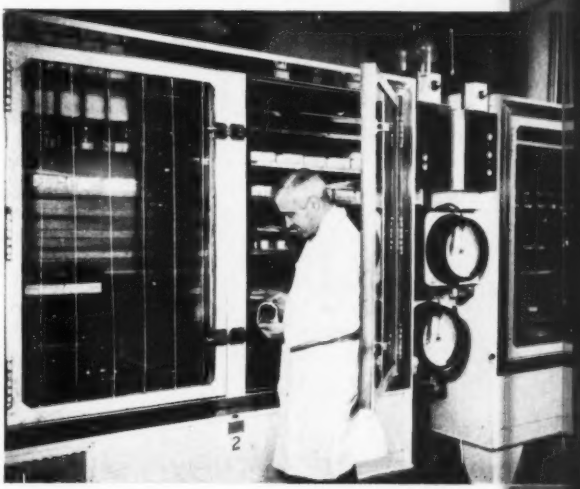
The growth of a science of packaging has its roots in the start of the chemical age, starting just after World War I.

The period of 1914 to 1918 saw a great acceleration in the growth of American chemical and associated industries. There was a tremendous increase in the number of industrial laboratories and a growing realization of the importance of and benefits to be gained from the scientific method.

By 1927 the chemical industry of this country was producing great numbers of new materials of all types and continually developing new products and searching for new markets. This actively stimulated many other manufacturing industries by giving them new and better means of meeting their customers' needs; at the same time it forced them to use more precise methods of development, testing and quality control. In other words, the activity of the highly scientifically based chemical industry in the 1920s forced many groups whose basis was predominantly crafts (i.e., non-scientific) to realize the need and the usefulness of the scientific method.

Packaging came under this kind of pressure, but up to 1927 little progress had been made in many areas and for many reasons. The most important of these reasons was the widespread disintegrated nature of packaging; the great number of materials and processes involved and the large number of relatively small companies in the field, both as suppliers and users. Much of packaging was dependent upon the printing and paper trades and both of these were at that time still dominated by craftsmen rather than by chemists and engineers.

One of the most important early influences on the scientific method in packaging was the com-



SHELF-LIFE TESTING of packages is conducted in huge cabinets like this one in which both the temperature and the humidity are closely controlled. Such evaluation, which is routine today, was unknown 25 years ago.

ing of Clarence Birdseye and the frozen-foods industry. Birdsye was himself a scientist and an engineer; the whole revolutionary technique of quick freezing foods for preservation was a scientific approach. The work had not gone very far before it was apparent that frozen foods required something more than ordinary packaging protection, that the qualities of known packaging materials were drastically altered by zero temperatures and that proper packages must be developed—and rigidly controlled as to quality—if the new process was to succeed. The virtues of quick freezing and the improved qualities of its products could never be realized until pack-

aging materials could be found that could be handled at zero deg. F., that would preserve the quality of the product for up to one year, that could be formed on automatic machines and that would be low in cost.

The establishment of a packaging laboratory by the Birdseye company in 1929 was, therefore, something of a milestone. The packaging problem was the more acute because there was no comparable product or marketing situation to use as a basis for development. Here was a case where a package had to be tailor made to fit unprecedented and exacting conditions. It was obviously a job for scientists.

This laboratory group soon found that there were no test methods, no testing equipment and no literature that would be exactly applicable to their problems. In addition to the overriding problem of zero performance, they had to find materials that would not be softened or stained by water or food juices and which would prevent freezer burn (a newly discovered phenomenon) for at least one year of frozen storage. These requirements are not severe by present-day standards, but in 1929 they were staggering.

The Birdseye package laboratory worked at first by trial and error, but with an engineering approach created its own tests and standards, and in time was able to pave the way for an important new industry and to establish the Birdseye brand in the preeminent position which it still holds in that industry.

This achievement set a valuable precedent for others. Among others, it impressed the company now known as General Foods Corp., which was then in the process of acquiring the Birdseye frosted foods and adding them to a growing list of products which was soon to make General Foods one of the biggest manufacturers of packaged foods in the country.

TORQUE TESTER permits adjustment of capping machines to precise degree of turning force, for good sealing and easy removal. The improvement of closure materials and methods is the great contribution to glass industry.



PHOTO COURTESY OWENS-ILLINOIS

General Foods precept

General Foods, in many ways, became a prototype of the modern mass-marketing technique heavily dependent on packaging. General Foods was formed not by developing products, but by buying established products with brand names and reputations that were worth many millions of dollars. It was apparent to the General Foods executives that, to protect their investment, they had to use every modern means of maintaining quality in their packaged products. It is to their credit that they recognized package testing as one of these means.

In 1934 General Foods set up a Packaging Laboratory within its Research Department and charged it with the responsibility of setting standards for suppliers of packaging materials, of providing quality control in package production and of developing new and improved packages for changing product needs.

The first work of this laboratory was devoted to evaluating the materials and packages presently being used and to determine their suitability for the products which they were carrying. It soon became apparent that there were a great many important functions of packaging materials which had no adequate test basis and which therefore could not be purchased upon any reliable specification basis. As a result, the General Foods Packaging Laboratory spent considerable time in the development of test methods, instruments and procedures for the reliable evaluating of packaging materials.

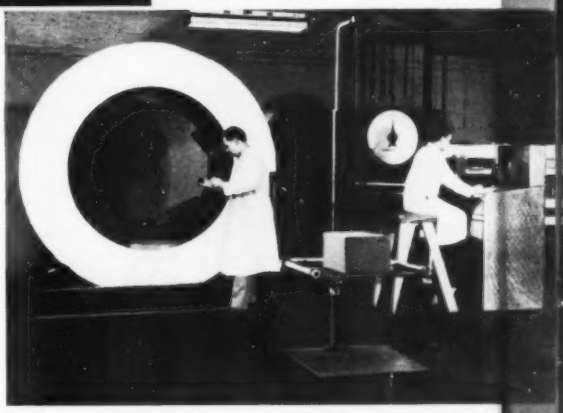
The General Foods laboratory was not merely a pioneer; it established a model for the food industry in particular and for package users in general, and through the years it has been a leading contributor to the growing packaging science in both methods and equipment. General Foods set the very valuable precept of freely publishing and sharing its package-research findings, thus helping to destroy the myth that private research is for selfish profit only.

Among other things, the General Foods researchers developed and published, in 1943, the basic method of water-vapor testing which became the standard of all packaging and which is still known as "the General Foods method." This laboratory also must be credited with the first method for measuring the gas permeation of packaging materials, with important findings on equilibrium relative humidity and on flavor and odor transmission, and in general with recognizing the importance in packaging of the



FIBRE CONTAINERS are routinely checked in control laboratories like this one to assure maintenance of quality. Instruments at left test container materials; below, tumble, drop, compression tests are given.

PHOTOS COURTESY CONTAINER LABORATORIES, INC.



packaging characteristics of the product itself.

General Foods is cited merely as an early example of the type of fully developed packaging research and development laboratory which is common in large package-consuming companies today. Great credit also should be given to the even earlier efforts of laboratories such as that of the National Biscuit Co., which in 1898 was responsible for the classic example of taking crackers out of the barrel into a protective unit package—probably the first demonstration of the potentialities of flexible packaging, as differentiated from the early rigid forms of metal, glass and wood.

It is the field of flexible packaging which in the last 25 years has undergone the greatest expansion and has provided the most dramatic examples of the application of the scientific method.

Except for such details as coatings and closures, the can or bottle is a standard package, not subject to any fundamental change of properties. But flexible materials offer limitless possibilities of treatments and combinations so that they can be precisely tailored to meet any given set of packaging requirements. And, of course, the coming of cellophane and plastic films and the great development of aluminum foil in packaging—all of which has happened in the last 25 years—posed problems for the technical men that were both exciting and exacting. Laminations, coatings and printing problems all called for extensive laboratory work and were responsible for increasing many-fold the number of active packaging laboratories.

Contributions of suppliers

Principle emphasis has been given so far to the development of technical package activity by the package-using companies, because that is the significant *new* trend of the 25-year period being discussed here. But in assessing credit for the present high level of packaging science, the contributions of the package-supplying companies and the raw-materials companies certainly must not be overlooked. Although they have experienced great growth and wide extension in recent years, research and development laboratories did exist in the package-supplying field long before 1927 and in nine case out of 10, package development has always been a matter of close cooperation between the laboratories of the package user and the supplier—one as important as the other.

The metal-can industry, for example, operated on a technical basis for many years before the present modern era of packaging. This industry was built upon Nicholas Appert's idea of the preservation of food by using heat sterilization in a low-cost, hermetically sealed package that would not be affected by its contents. In the early days the can industry used trial-and-error methods, because it had no alternative, but it adopted the scientific means as they became available and this industry solved its problems



STANDARD equipment for water-vapor testing of materials is this atmospheric control cabinet, known as General Foods or Southwick cabinet. It was developed by C. A. Southwick, Jr., while director of package research at General Foods Corp.

PHOTO COURTESY PACKAGE MATERIALS LABORATORY.

and made its great growth by capitalizing upon the technical progress in metallurgy and organic chemistry. For many years it had to serve as the sole technical resource for its customers—the canners. The metal-can industry today is probably the best example of a package-supplying industry that is completely dependent upon and organized along scientific lines.

A quarter of a century ago the glass-container companies were using technical and engineering means to operate their plants and develop new uses for their containers. Many of the packaging problems in this industry concerned the closure and, more particularly, the lining and sealing means used in the closure. The leading companies were doing much technical work on closure problems, but standard test methods were not available and many problems were solved by trial and error. Before 1927 nearly all the closure-liner materials were based upon natural oils and resins and there were relatively few types in use. The introduction of liners and caps based upon synthetic resins necessitated the use of reliable methods of evaluation and testing. The present glass, closure and liner industry is highly organized along scientific lines and well-perfected laboratory procedures are used to solve customer problems and improve the performance of the glass package.

The fibre shipping-case industry by 1927 had begun to realize the need for technical assistance and at least one commerical testing laboratory devoted to this field was in operation. Fibre shipping cases of various constructions and materials had been in use for many years for some packaged products, but there was an increasing demand for wider uses, and the lack of facts about performance could only be satisfied by laboratory work. The Container Testing Laboratories were founded in 1923 and began their testing using a revolving drum and a compression machine. Both of these test machines had been developed and used previously, but they were not generally available. Container Laboratories also made unit tests of material, including Mullen and tensile, but only the wheel and compression tests on the complete case.

Technical groups

Three technical associations have been instrumental in recent years in developing certain technical phases of packaging and in bringing packaging scientists together for discussion so they could realize they had much in common.

The Technical Assn. of the Pulp & Paper Industry (TAPPI) was organized in 1915, although it was not until July, 1926, that it issued the first of its now widely recognized TAPPI standards. This first group of 18 reliable and reproducible test methods concerned the composition and properties of paper and paperboard only, but since these materials are so basic and so important to packaging it was an important contribution to this field.

At present, TAPPI is responsible for 13 Standard Recommended Practices, five Standard Specfications, 158 Standard Testing Methods and 15 Suggested Methods. Many of these standards do not apply directly to packaging, but most are applicable indirectly because they cover basic materials. Perhaps most important of all is the fact that TAPPI established basic testing procedures which have been readily adapted and modified for other materials, such as plastic films.

More specifically concerned with packaging is

THE AUTHOR, Charles A. Southwick, Jr., might properly be called the dean of the young science of package engineering. Since his graduation from the Massachusetts Institute of Technology in 1928 as a chemical engineer, his entire career has been spent in the development, testing and evaluation of packages. He organized the first Packaging Laboratory at General Foods and during his 13 years there developed the standard method and equipment for water-vapor testing frequently referred to as "the Southwick method." His preeminence in the field resulted in his appointment in 1943 as the first and only Technical Editor of MODERN PACKAGING. From 1943 to 1947 he was Director of Research for Shellmar Products Corp. and since then has acted as a private packaging consultant while continuing to conduct the Technical Section of MODERN PACKAGING.



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the Packaging Institute, which in recent years has developed a network of technical committees, has published some helpful reports and standards, and is now engaged in assembling a complete workbook of packaging test methods—many of them directly adapted from TAPPI, others representing original work by committee members.

The American Society for Testing Materials also has taken increasing cognizance of packaging in its meetings and publications, and has developed certain test methods, notably in the field of shipping containers and in other aspects involving physical testing.

All of the above activities together added up, by 1943, to a respectable body of scientific effort in packaging. But most of the groups were bits and pieces of other organizations and there was a need for a single catalyzing force that could unite all of the activities and provide a single medium for regular publication of their works.

That was provided by MODERN PACKAGING in 1943, when it inaugurated its Technical Section as a regular feature of each monthly issue—the only publication today on a scientific level which is strictly devoted to the interests of packaging.

Interrelation of industries

The growing importance of the plastics industry to packaging provides a good example of how research and development in a supplying industry needs a corresponding facility in the field of its users.

Plastics are produced by companies which are part of the scientifically organized and integrated synthetic-chemicals business. The production, control and use of plastics from the resin to the end product must be exactly and scientifically controlled to be economical and effective.

Plastics of all kinds and in various forms have been used in some way in packaging for many years. The first uses were probably to replace or improve natural resins or gums. However, within the last 25 years packaging has become a major field of use for many resins and allied plastic products, employing these materials to give packages new or better functions, or the same functions at lower cost. The proper use of plastics would be a simple matter if only a few types or formulations were known, but today there are many hundreds of resins and allied plastic products which are used alone or in mixtures for thousands of package applications—in many of which the plastic material eventually loses its identity.

The problem is made more complex by the fact that each plastic material may be made in many grades by several different companies and that several materials may be compounded into a complex mixture which in turn can be a part of a larger batch. The result is that there is an astronomical number of possible combinations of materials and uses. Laboratory evaluation by skilled technicians is not merely the most reliable and lowest-cost method—it is the only method.

The plastics industry is still expanding to produce new materials and to reduce the cost of present materials. This can mean improved packages for those companies who have the personnel and facilities to evaluate them scientifically.

There is no process, material or package type today that is not vulnerable to competition, not only by companies in the same field, but perhaps even more so from companies who are approaching problems with new materials and processes. For example, the glass package is having increasing competition, for some uses, from unbreakable plastic bottles. The metal can and the glass container now have as competition liquid- and gas-tight flexible packages.

Packaging is in a unique position to benefit from scientific research, development and engineering. Packaging is fundamentally a service function and the package seldom has intrinsic value. Therefore, it is necessary that the package perform its various functions, from decoration through preservation and convenience in use, at the lowest possible cost. This requires the most efficient use of materials and rapid automatic means of forming them into the finished and filled package.

Packaging in terms of total materials and services is estimated in 1952 to run close to $10 billion and while that figure is large, it is very small when compared to the value of goods carried. The packaging field is still in a phase of rapid growth and will remain so for many years to come. The rate of growth will depend in large part upon the ability of its engineers and scientists to create new materials and package forms to serve in a new or better way its many users.

SCIENTIFIC APPROACH to packaging is such that salesmen of packaging materials today are trained in the laboratory before their companies send them out in the field.



PHOTO COURTESY DU PONT.



PHOTO BY HAL FINLEY

HOT JAM SESSION on package design in 1931 is typical of group discussions that occurred in those days when modern principles were evolving. This session at Calkin & Holdens included some of the design pioneers. Clockwise, from left: Gustav Jensen, Robert L. Leonard, George Switzer, Ruth Fleischer, Egmont Arens, Renee Clarke, Joseph Sinel, Lucien Bernhard. Bust in background is that of Ernest Elmo Calkins.

25 years of progress in . . .

Package design

Mass production and changing ways of living have elevated design to a merchandising science.

By EGMONT ARENS

In the 25 years since MODERN PACKAGING was founded, there have been a great many changes in the basic attitudes of the business world toward what a package should be and there have been, correspondingly, several well-marked changes in design style.

I happened to get interested in package design just about the time that this magazine was started, so my own recollections of what has happened in the way of package design in the last 25 years may be of interest. I would like to say at the start, however, that what I write down here are the personal recollections of a man with a congenitally poor memory. If I have left out important names and events in the history of package design, it is certainly not by intent. I will give most space to those men who were pioneers, so that their contributions will not be forgotten, and will have to slight more recent happenings which are probably well known to most of the readers of MODERN PACKAGING.

I think I may safely say that before 1927 package design was a "hit-or-miss" affair and although a lot of high-powered thinking was beginning to be used in the advertising field, the package was still the Little Orphan Annie of most business concerns. Package design was one of those things that an executive got advice about from his wife, who perhaps had studied china painting when she attended finishing school, or from his secretary, whose favorite color was blue because she knew what went with blue eyes.

The next step in the development came when lithographers and printers hired artists in order to keep their presses going. These artists put what was considered the "artistic touch" on commercial packages. The general idea was to put some illustrations and curlicues on the label wrap to "doll it up." So we got a picture of the factory where the product was made, with ivy vines growing on the walls; a portrait of the founder, usually with whiskers (and if he had



1929 Lucien Bernhard introduced poster technique to packaging. His Rem package of that date shows impact attained by bull's-eye simplicity.

1930 Egmont Arens is very fond of this package, his first design for A & P, which increased sales 10 times. The basic design is still used.



a brother who had whiskers they put him on, too).

Medals that were won at the Philadelphia Centennial Exhibition of 1877 were considered real hot stuff on the back of the package. The trademark was a prize example of rococo lithography and the type was handled with elaborate curvatures, beautiful but rarely readable from 2 ft. away.

Then came the time when the feminine influence in buying was discovered and the so-called artistic packages had to have violets, rosebuds and all kinds of feminine fripperies on them. The last of these dropped out of toiletries about 10 years ago.

In those dear, forgotten days this kind of package design was perhaps satisfactory enough, for the actual selling was done by an elderly storekeeper who had nothing much to do but keep abreast of his customers' pet ailments and weaknesses.

Early influences

But a new spirit was astir in the land. During the 1920s, owing to the tremendous sales power of national advertising, a great many factories that had been manufacturing in limited quantities suddenly found themselves unable to supply the demand by old-fashioned production methods.

When they switched to mass production, their sales managers were confronted with the necessity of mass sales and at this point a new attitude developed regarding package design. Hit-or-miss recommendations of the executive's wife or stenographer no longer satisfied the up-to-date sales manager, who could not afford to let anybody's wrong guess cut into his sales figures. So the demand sprang up for designers who knew enough about merchandising to produce packages with built-in sales appeal.

There was a new approach to consumption problems which was less sentimental, more realistic, more scientific. Consumer research organizations sprang into being, got the lowdown on what made the public buy. Thus a new kind of package designer was called for and a great deal more was demanded of him than the ability to paint pretty colors on cardboard boxes. He was supposed to be thoroughly grounded, not only in the matter-of-fact problems of production and merchandising, but in the much deeper and subtler problems tackled by the sociologists and the psychologists of the mass mind. He was supposed to know business as a matter of course, but he had to know people, too, and interpret them to business, which was often a big job in itself. He had to be versed in the vagaries of fashion and how it affected style and he was supposed to have an almost uncanny foreknowledge

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THE AUTHOR, Egmont Arens, is himself one of the deans of American package design. His design career parallels the 25 years of this magazine. He joined Calkins & Holden in 1929 and established their Industrial Styling Division; for the last 20 years he has conducted his own New York studio. Among his outstanding packages are numerous designs for A & P (including the famous coffee bags), Brillo, Carborundum, Higgins Drawing Inks, Industrial Tape, Philip Morris and Rockwood Chocolates. About 50% of his present activities are in the fields of product design, color counsel, interiors, etc.





1932 Paul Ressinger set a precedent for company-wide family design with a comprehensive program for Montgomery, Ward in 1932, of which drug packages are a sample.

of those changes in public taste which have no obvious cause, but which, if the truth were known, are the result of changed ways of living. He was asked to be mechanical-minded and inventive so that he could develop new package constructions, but with all the rest of this he had to be an artist with a lively imagination with which to capture the interest of the public.

I like to think back to those early days when this new art of package design was emerging as a profession, and the enthusiastic and lively debates that we used to have at the packaging forums, such as those instituted by MODERN PACKAGING on the subject, "What Makes Packages Sell?"

Shortly after MODERN PACKAGING was founded in 1927, and probably through its influence, the package first came to be generally recognized as a potent selling tool. There was such a flurry when this discovery was first made that a lot of beautiful nonsense was put on packages by over-enthusiastic sales managers who let their art studios run wild. "Anything to attract attention" seemed to be the rule. Indeed, some of the weirdest packages were involved in what was considered the new mode—the so-called moderne. Diagonals and clashing colors, that reminded one of the art of camouflage developed in World War I, were used in wild confusion. Unfortunately, just the reverse of camouflage was required, so this journey into the never-never land of abstraction was short lived.

There are fashions in packaging just as in women's clothes. The next important style trend in packaging was in the direction of great simplicity. Color was used for its mass effects. Typography was simplified, and illustrations and design "camouflage" were rigorously banned.

This period was representative of the poster school of package design, as exemplified by such artists as Lucien Bernhard. These bold, stark packages stood out strongly on the shelves against competitors in the old ornate tradition. And so well were they conceived that many packages of the poster era are still selling merchandise.

During this period in the early '30s every element in a given package was challenged for the contribution it could make to sales—so the brand name, the trademark, the sales copy, the directions, the illustrations on the back were all questioned and often discarded or changed. During this period also, private-brand merchandising came into being. Great families of packages were designed to work harmoniously together. It was a day for taking stock.

But there was to be another great upheaval in packaging. It started with the first supermarkets, but became widely accepted about 1935. This was what we may call the Self-Service Revolution in retail selling. The story has been often told and I won't repeat it here, but the gist

PHOTO COURTESY HOFFMAN BEVERAGE CO.



1934 Thomas D'Addario established his reputation with this design, which increased sales over 800% and started a trend in the beverage industry.

of it was that packages could no longer be coddled by an obliging sales force. They had to sell themselves.

Supermarket selling techniques made it necessary for package designers to change their whole approach. In a great many cases the poster-style package had to be abandoned. In these new stores women could pick up and *read* the packages all the way around. This fact demanded a new check-list of what a package must have: for instance, *readership*—just like a magazine, with pretty pictures all around the can to hold interest and clinch the sale. And if it's a food it must have appetite appeal and that means high-fidelity, full-color reproduction.

As a case in point, all the qualities needed for *self selling* are contained in the General Mills' Bisquick package, designed by William C. Schneider, which I consider the best supermarket package in the stores. Here is quick identity, luscious reproduction of biscuits, pies and cakes that can be made of the mix, recipes and readership (i.e., pictures and text) all around the package. The buy appeal is greatly enhanced by use of multiple fronts. All of 10 different fronts, showing 10 different illustrated recipes, are on display when the Bisquick packages are stacked.

Every day the battle of the brands gets more intense. Shortly after the supermarkets were well established came the deluge of frozen foods with new demands on packaging and now we see the produce people hot and bothered about pre-packaging fresh fruits and vegetables. There seems to be no end to the problems that package designers are being asked to solve.

The pioneers

Years ago things did not happen so fast in the packaging world. The very first name to emerge as an outstanding package-design consultant was that of the late Arthur Allen, who may be said to have founded the profession of package designing. Arthur was basically a color consultant. He was a devoted disciple of Albert Munsell and his consistent advocacy of the Munsell color harmonies did much to get almost universal acceptance of the Munsell System. He did a good educational job, too, and many young men such as R. Ruzicka and Fred Rahr, who had worked with Allen, became package designers and/or colorists under their own names. Allen certainly got around. I don't think that there was any important executive concerned with packaging in those early days who was not familiar with Arthur Allen and his spinning color wheel.

By his genial personality, good salesmanship and general competency he won the respect of the business world—not only for himself, but for the whole profession of package-design consultants. Certainly those of us who have followed in his footsteps owe a great debt to the pioneer work he did.

1936 Harry Farrell succeeded in pulling the Green Giant label out of the hodgepodge of competitive canned goods; he created a trademark to provoke point-of-sale and advertising attention value.



PHOTO COURTESY MINNESOTA CANNING CO.

Allen's designs were characterized by his great concern for color values. His favorite device of graduated bands of color was used on so many of his packages as to constitute a sort of Arthur Allen trademark. Way back in 1909 he redesigned the Lifebuoy soap carton, which was one of the first redesign jobs for a major product done by a professional designer. Among the many packages that he modernized were Du Pont's paints, Morton salt and McKesson's toiletries. Some of his designs are still in use practically as he designed them. He was also the first designer to design a complete line, as he did for Kingan's meats. This redesign job included not only a line of many hundred items, but the basic trade-

1937 Gustav Jensen gave elegance to Morrell label—much lighter touch in lettering; coloring that appealed to women; the use of good color photography and text cut down to essentials. Morrell sales were tripled.





PHOTO COURTESY STANDARD OIL CO.

1937 William O'Neill set a fine example of the new, uncluttered look of that time with bold and startling simple design for Esso family.

marks, the company's stationery and even the trucks.

Another pioneer, whose influence was responsible for the acceptance by business of more modern packages, *streamlined for selling*, was Lucien Bernhard, who came to America from Munich as a typographic designer. Bernhard's designs for the Bauer type foundry in Germany, and later for American type foundries, created a revolution in advertising and typographic display, and ushered in an entirely new attitude toward type readability. The old school of typographers, like Goudy, who looked for their inspiration to William Morris and printers of even greater antiquity, thought in terms of the beauty of the printed page, but they were out of step with the demands of modern advertising and merchandising. Bernhard's streamlined types broke up that tradition and proved that types for the modern world could be both beautiful and fast reading.

Bernhard was one of a group of designers who recognized the need for posters that could be read by people in automobiles traveling at 30 miles an hour. He developed a new fast-reading poster style, suitable to an age of people on the move. This poster style was admirably suited to the type of package design that became popular in the early '30s and Bernhard has to his credit many excellent packages, such as Rem cough medicine and Ex-Lax, which are as modern today as they were when first designed over 20 years ago. Recently, Bernhard has yielded to a life-long desire to paint uncommercial portraits and he devotes more and more time to that hobby, although still doing some package designing.

Among the early influences for better package design was another artist whose prime interest in beautiful lettering and typography led him logically into packaging. Gustav Jensen, who is still actively at work, was among the first to proclaim the importance of good design in packaging and his deep *basso profundo* voice was often heard in packaging forums insisting on his one great criterion—"Beauty!"

Jensen insisted that the average person, educated or not, will always respond to beauty and that the designer's real contribution to the sales value of a package was that elusive quality you may see in Da Vinci's painting of Mona Lisa or a sculpture by Rodin. Jensen's designs have always been characterized by the delicacy and elegance of his typographical treatments and have been particularly successful in cosmetics and toiletries. The "Cotton Picker" which he designed for Bauer & Block launched a new dispenser-type package. He has many distinguished

PHOTO COURTESY GENERAL MILLS.



1937 William C. Schneider designed for General Mills what Egmont Arens calls "the ideal supermarket package" —quick identity, luscious reproduction, illustrated recipes, 10 different fronts and readership all around the package.

packages to his credit, including the Hormel canned-meat line here illustrated.

To Ben Nash, who died just a few months ago, must go top honors as one of the most devoted of the early package designers. He was one of the first to realize the importance of the merchandising approach and, as a result, his package designs made sales soar. His designs for Armour's line of canned meats comprised the first complete Armour redesign job; Raymond Loewy's came later. Ben anticipated the trend to self-service selling that now dominates many retail lines. He incorporated the idea of *appetite appeal* as a strong sales stimulant in this design of a whole family of products. He had dozens of other top package designs to his credit and in his later years he was a teacher and adviser of many of today's promising young designers.

Other influential designers

Simon de Vaulchier, some 20 years ago, founded the design firm of De Vaulchier, Blow & Wilmet. De Vaulchier was a great believer in good style. He was particularly good in designing cosmetic packages for women as well as for men and did several lines of soaps and cosmetics. In 1933 he won the A.M.A.'s Irwin D. Wolf Trophy for his O-Cedar Wax Cream package. Georges Wilmet, now retired, later left the partnership and created many fine label designs for glass packages under his own name.

Another designer very active in the '30s was Martin Ullman. He was one of the first to realize the importance of good design in the variety-store field and his packages began making sales history way back in the early '30s, long before the dime-store crowd had discovered the reason for it. Ullman is still going strong.

William O'Neill deserves credit for his pioneer work in convincing executives that simplicity and impact were among the essentials of effective designing. He was responsible for such packages as the Esso line of automotive lubricants, Kulman's lines of house paints, Rumford baking powder and other large families of packages, all characterized by great simplicity, outstanding color combinations and bold typography.

In 1936 when he won the Wolf Award for his Du Pont Five Star Anti-Freeze, Jim Nash was a comparative newcomer in the package-design profession. Previously he had gained quite a reputation as a poster artist and as an agency man at Batten, Barton, Durstine & Osborn, Inc. Since hanging out his own shingle, Jim Nash has many outstanding packages to his credit. He has been especially successful in redesigning large families of products under a new distinguishing trademark, such as the famous "Mc" trademark he developed for McCormick spices, the "P" trademark he did for Pillsbury's packaged



PHOTO COURTESY MCCORMICK & CO.

1938 Jim Nash rode to fame on his "Mc" trademark and clean poster style which skyrocketed the McCormick line from obscurity into a national best seller.

flour mixes and the Duff's flour-mix packages with their easy-to-remember double "ff."

Raymond Loewy's approach is the typical industrial designer's approach to packaging, what might be described as a *visual* public relations job. Packaging is one of the important elements among the visual aspects of a large corporation and the face it turns to the public. Loewy has been most successful in handling jobs of this nature, such as those he did for Armour & Co., Lever Bros., National Dairy, Lucky Strike cigarettes and International Harvester.

Among other industrial designers who do considerable package designing as part of their overall services to large corporations are Frank Gianninoto (General Foods), Joseph Platt (Ponds),



1938 Arthur S. Allen, often called the father of modern package design, showed his technique with this Listerine tooth-paste redesign, still almost unchanged.



1944 Raymond Loewy provided this typical example of the industrial designer's approach to coordinating a large diverse family of products under a single trademark, yet with individual identity.

Donald Desky (Procter & Gamble), and Lippincott & Margulies (Nedicks).

The history of package design is by no means a New York story. A distinguished group of designers has worked out of Chicago. Pioneer of the Chicago package designers, probably, was Paul Ressinger, who designed the first Montgomery, Ward family of packages back in 1932. A Chicago man who has won laurels in the field is Harry H. Farrell, who is best known, perhaps, for his Green Giant peas label.

Other names in Chicago that come to mind include Ernst A. Spuehler, Dave Chapman (Parker Pen), Harper Richards (Toni, Meadow Gold Ice Cream), W. E. Waltman, Robert Budlong, Karl Peter Koch, Robert Schwarz, Jean Reinecke, Lea Tek and Robert Sidney Dickens.

1945 Frank Gianninoto made Birds Eye a model of modern technique by combining "fresh from farm" look for frozen foods with high-fidelity vignettes.



PHOTO COURTESY GENERAL FOODS.

Among West Coast industrial designers who have made their mark in packaging are Ronald L. Cleveland, Tinsley T. Jepson, Leonard Arthur Wheelen and Charles Cruze, all of Los Angeles, and Walter Landor of San Francisco.

Among the younger Eastern designers forging to the front are Charles C. S. Dean (Loft Stores), Koodin & Lapow (Chicopee Mills), Robert G. Neubauer of Bridgeport and Gerald Stahl.

There are, of course, dozens of other package designers, as well as art directors and executives in agencies and in the large corporations who have done outstanding packaging work. Unfortunately there simply isn't room to list them all.

I like to remember, though, early contributions to the art of package design by some of the agency men, such as René Clark and Ernest Elmo Calkins of Calkins & Holden. The latter coined the term "consumer engineering." The idea was that you find out scientifically what consumers will buy and then you engineer-design it so it sells to them easily. That was the basic philosophy of all successful package designing thereafter.

Other agency men who helped put over the idea that packaging is an art were Vaughn Flannery, art director of Young & Rubicam, who developed the first wide-mouthed ketchup bottle; Charles T. Coiner, art director of N. W. Ayer in Philadelphia, who consistently encouraged good package design among Ayer clients, and Gordon Aymar, who has sold the idea of good, clean, simple packaging to the business world for the last 25 years. There are many others, of course, but these are among the pioneers in the agency field.

The early packaging clinics held under the



1950 Lippincott & Margulies provide a fine example of modern practice. Continued repetition of basic design elements, dramatized name, peppy trademark assure consumer recognition at all points of sale for product.

auspices of the American Management Assn. helped make design history. Designers, packaging engineers, sales managers and top executives had their say and no holds were barred. As a result, the designers learned a lot about the business of selling from the executives and the executives developed a new respect for the artist-designers.

A history of those who did pioneer work for better package design would be incomplete if it omitted the long years of effort put forth by the publisher and editors of MODERN PACKAGING itself. Since this Anniversary Issue is devoted to that story, I will not go into it here, but I do wish to set down on behalf of myself and the profession of package designers, an expression of the great debt we all owe to Publisher Charlie Breskin and those who have worked with him. Charlie started preaching the gospel of better package design in the very first issue, in September, 1927, and he's up there in his new offices at 575 Madison Ave. today, enthusiastically and forcefully preaching the same gospel. In those early days he hoped he was right. Today he knows he's right and more power to him!

The story of MODERN PACKAGING's famous All-America Packaging Competition is told elsewhere in this issue. But I must say here that the influence of these competition analyses and awards toward improved packaging design was tremendous. In the old days, the annual exhibitions of All-America award winners—and the award dinners, genially presided over by Charlie Breskin—were the real highlights of the annual AMA Packaging Show.

At one of these royal banquets that Charlie Breskin had spread for us, he got up and said something like this:

"A few years ago there were a lot of packaging cliques in this country. There were the suppliers, the machinery men, the pulpboard men, the lithographers, the printers and the chemical men. And there were their customers—manufacturers of the commodities that had to be packaged. Also in offices, studios, in garrets or wherever, there were some artist-designers. Now I like to see all you people here together getting acquainted. I like to think that all you people, of whatever category, are the packaging fraternity of America. You all need each other and here's where I hope you'll find that out!"

From a designer's point of view that was good talk. Good package design finally had to take in the points of view of all these various special interests. That it has done so in the space of the last 25 years is one of MODERN PACKAGING's greatest accomplishments.

1951 Robert G. Neubauer set the pace in the big swing to the use of liquor gift cartons with these designs for Fleischmann's. Elegance is achieved with economy; careful planning minimizes costly plates and printing.





THE LATE ALVIN E. DODD was president of the American Management Assn. during its years of greatest growth in packaging, 1936-48. This memorial portrait hangs in the Dodd Room at AMA offices.

25 years of progress in . . .

The packaging associations

They have helped build the recognition of packaging as a common interest on the management level.

By HENRY J. HOWLETT

No historical review of packaging during the past generation would be complete without mention of the influence and accomplishments of the professional associations. As science and the graphic arts raised the level of packaging utility and beauty, these groups kept pace through the exchange of knowledge and the stimulation of interest in the field to the point that it now ranks as an important phase of management.

Packaging in 1927 was a vast, unorganized field comprising countless varieties of business needing some catalytic agent to bring together for discussion and solution the inter-related problems presented by the advent of new materials, new techniques and the demands of rising costs and higher standards of living. Through meetings, research, forums and staff facilities this need has been met by the management associations in a way possible only in a free economy.

It is little less than astounding to visitors from abroad that American business men are so willing to sit down with each other and disclose to their competitors what they have accomplished in their own companies. To us, so ingrained is the "conference" habit that we would be surprised and disappointed to encounter anything less than complete candor in a speaker. We, through long experience, know that at the meetings of the professional management groups, at their expositions and in their committee work, friendships of lasting value are formed, the younger generation is educated, ideas are exchanged and everybody is a little better off.

Today there are many groups interested in packaging and there is no intention here to slight any of them. However, in packaging there are two distinct types of organizations: (1) the



1931 First Packaging Show in May, 1931, at the Pennsylvania Hotel in New York, had 34 exhibitors.



GUIDING SPIRIT of all AMA Packaging Shows from the start was Saul Poliak of Clapp & Poliak, exposition managers.



1951 20th Packaging Show last year at Atlantic City, N. J., filled the nation's largest exhibit hall. There were 264 exhibitors and 16,000 were in attendance.

trade association, which operates vertically through one particular supplying or using industry* and (2) the horizontal association, which cuts crosswise through many industries, linking their common packaging interests—just as does MODERN PACKAGING in its readership. Obviously, the horizontal groups have had the greater influence in integrating the "packaging field" (which literally did not exist in 1927) and it is with that group that this history is concerned.

The three organizations of this type which have lived through the formative years are the American Management Assn., the Packaging Machinery Manufacturers Institute and the Packaging Institute. True, the Packaging Machinery Manufacturers Institute might be more accurately classified as a vertical trade group, but because machinery is a problem common to all packagers—and because the history of the PMMI is inextricably bound up with that of the Packaging Institute—it must be included here.

American Management Assn.

The story goes—and I would not guarantee its veracity—that the Packaging Division of the American Management Assn. was conceived as a result of an incident at one of their smaller meetings of marketing men. Disparaging remarks were made about the terrible packaging job done by insurance companies on their policies and at the suggestion of John Stevenson of the Pennsylvania Mutual Life Insurance Co. the group undertook to repackage those of the latter organization. True or not, the fact remains that this company pioneered a sensible format, improved envelope design and other refinements, since adopted by almost all insurance companies. As a result of this small success, it was decided that the AMA should sponsor a formal packaging activity as part of its regular program.

A more credible story comes to me from Saul Poliak of Clapp & Poliak, exposition managers, who has lived through American Management Assn. packaging from diapers to long pants. According to Saul, two men should take the bows for starting what has grown into one of the biggest and best things of its kind—the National Packaging Conference and Exposition. They are Irwin D. Wolf and William J. Donald. Irwin had the vision and Bill made it live and, of course,

*Among them:
Adhesive Mfrs. Assn. of America
Coated & Processed Paper Assn.
Collapsible Tube Mfrs. Assn.
Fibre Drum Mfrs. Assn.
Folding Paper Box Assn. of America
Glass Container Mfrs. Institute
Glassine & Greaseproof Paper Mfrs. Assn.
Label Mfrs. National Assn.
National Canners Assn.
National Flexible Packaging Assn.
National Paper Box Mfrs. Assn.
Point-of-Purchase Advertising Institute
Produce Pre-Packaging Assn.
Society of Industrial Packaging & Materials Handling Engineers
Technical Assn. of the Pulp & Paper Industry
Toilet Goods Assn.
Waxed Paper Institute
Wirebound Box Mfrs. Assn.

they were supported and encouraged by MODERN PACKAGING.

Irwin Wolf, vice president of Kaufmann's Department Stores in Pittsburgh, was and is a man of sensitive esthetic tastes tempered with shrewd business judgment. It was his belief that merchandise beautifully packaged and beautifully displayed would sell. This was at a time when packaged items in a department store were more or less on a utilitarian basis and very much in the minority. It is interesting to recollect that Kaufmann's were among the first to put his theories into practice and to observe the impact of this policy on retail merchandising practices. In the development of this idea with his friend Bill Donald, then managing director of American Management Assn., it was suggested that packaging had come of age and should be represented by a separate AMA conference and exposition. This was late in 1929. As a trial balloon, AMA in 1930 held a small exhibit of good packages and it created so much interest that it was decided to rent a hall, sell space and go all the way. So, in 1931, the first exhibition and conference as we now know them was held. To say that it was small and somewhat anemic is no exaggeration.

I have before me a "Statement of Income and Expense" of this historic event held at the Hotel Pennsylvania, New York, on May 19-20-21, 1931. There were 34 exhibitors occupying about 2,700 sq. ft. of booth space in the Grand Ballroom. About 2,000 persons visited the exhibits, including those who manned the booths and attended the conference. Here are the companies who bravely put their money in this new venture:



IRWIN D. WOLF was one of the founding fathers of American Management Assn.'s Packaging Division. He helped organize first Packaging Show and for years sponsored the Wolf Award in an AMA packaging competition.

Advertising Age
Benjamin C. Betner Co.
Better Packages, Inc.
Brown & Bailey Co.
Container Co.
Container Corp. of America
Container Equipment Corp.
E. I. Du Pont de Nemours & Co.
Einson-Freeman Co., Inc.
Robert Gair Co., Inc.
Gerrard Co., Inc.
Hess & Densen
Hy-Sil Manufacturing Co.
International Printing Ink Div., Interchemical Corp.
Interstate Folding Box Co.
Kalamazoo Vegetable Parchment Co.
Lowe Paper Co.
MODERN PACKAGING
National Folding Box Co.
National Metal Edge Box Co.
New Jersey Machine Corp.
Outserts, Inc.
Package Machinery Co.
Packaging Design Corp.
Packaging Record
Riegel Paper Corp.
Thomas M. Royal & Co.
Sealright Co., Inc.
Shoup-Owens, Inc.
Sterling Engraving Co.
Stokes & Smith Co.
Sylvania Corp.
Trenton Folding Box Co.
Union Bag & Paper Corp.

Of these, the Container Corp. of America, Du Pont, Kalamazoo Vegetable Parchment, MODERN PACKAGING, National Metal Edge Box, Package Machinery Co., Riegel Paper Corp. and Stokes & Smith have since exhibited in every AMA Exposition—20 in all.

AMA, not too robust financially at the time, lost $136.34 on the first show, but there need be no cause for alarm, as subsequent years have, I believe, been somewhat more profitable. At the conference, 112 hardy souls turned up and 108 stayed for lunch. I mention this because the Pennsylvania charged $1.75 (including tip) for lunch. Ah, me! Who says these are the days?

The conference was mostly devoted to consumer packaging topics, which is understandable. Industry did not then think of "packaging" in terms of bathtubs, generators, filing cabinets, screw drivers and all the countless industrial



W. J. DONALD was managing director of AMA at the inception of its packaging activities. He was the man who put ideas to work in the exposition. He also helped organize the Packaging Machinery Manufacturers Institute.



WILLIAM M. BRISTOL, Jr., of Bristol-Myers was the first president of The Packaging Institute. His was representative of the intelligent interest of users, which raised the packaging associations from a promotional level to their technical, functional level.

products that today come in sell-designed packages. The first chairman was George D. Olds of Hills Bros. Co. and the first speaker was C. B. Larrabee of *Printers Ink*, who spoke on "When, Why and How to Package."

For some 10 years AMA also conducted an annual packaging competition known as the "Wolf Awards." Certificates were granted in various categories and the Irwin D. Wolf Trophy went to the "best" of all the 20 classification winners. AMA decided in 1940 that, having served its purpose, this competition should be discontinued, particularly since the design field was being well served through the All-America Packaging Competition then being conducted by MODERN PACKAGING.

This publication could be entirely filled with reminiscences of the early years of the associations. Suffice to say that 1932 saw 88 firms exhibit their wares at the Palmer House in Chicago which, by the way, was the record for shows held in hotels. There was some slackening of interest in the next few years, possibly because of economic conditions, but from 1935 on the interest and participation increased until 85 exhibitors filled the Palmer House to overflowing in 1944 and means were sought to provide space to meet the growing demand. The war year of 1945 caused a lapse in the Exposition and gave the respite necessary to take the big step out of hotels into a convention hall. That the decision of the Packaging Exhibitors Advisory Committee to do so was sound is proved by the 147 companies appearing in the 1946 show in Convention Hall, Atlantic City. Since that time the number has rapidly increased until they will total close to 300 in 1952 and occupy something over 102,000 sq. ft. of exhibit space.

That a trip to Atlantic City during Packaging Week is no longer considered a vacation is well proved by the 16,000 business people who attended last year's show. Here in truth may be seen "all the new ideas and developments in packaging."

The story of AMA's Packaging Exposition is the story of men and high on the list of those deserving the gratitude of industry are Saul Poliak and Truman Clapp, his partner. Saul has managed every show and Truman has been with him in all but the first three. Through their meticulous attention to detail and unswerving integrity, standards have been set and adhered to through the years that make the National Packaging Exposition a model of its kind.

And speaking of men, there was the late Alvin E. Dodd, who succeeded Donald as president of AMA in 1934. Here was a true patron of the packaging art and it was largely due to his wise counsel and persistence in the face of discouraging odds that AMA became a leader among packaging groups. Alvin Dodd was one of the great association executives of our time. His leadership made AMA the great conference organization that it is today.

AMA's packaging conference has grown in importance with the passing of time. Today all phases of packaging—industrial, consumer, merchandising, design, production and equipment—are subjects for analysis and discussion at its clinical sessions. Attendance lists contain names from literally all over the world. AMA pioneered and developed some of the most useful forms of conference sessions such as the so-called "clinics" in which actual packages are dissected and analyzed, "question-and-answer" sessions in which individual problems are considered by a panel and technical sessions in which scientific subjects are treated for the benefit of the layman.

Conference attendance has grown from the first hardy 108 until today over 1,200 executives annually register for the sessions.

The machinery manufacturers

This man W. J. Donald should get some sort of packaging award, as I find that he was directly responsible for the organization of the Packaging Machinery Manufacturers Institute also. Its historical background is almost as venerable as AMA's, although it differs to a considerable extent in purpose and in the service it renders.

In 1933 Donald brought together a group of 24 men from 17 firms producing packaging machinery of various kinds. How this list takes you back! Kirke Becker, Sam Langston, Frank Fairbanks, Charlie Barr, Herb Leonard and George Mohlman are among the names that will always be a part of packaging history. They apparently got off on the right foot, as they "spent several pleasant days at the Buckwood Inn, Shawnee-

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THE AUTHOR, Henry J. Howlett, has modestly omitted from the accompanying article the fact that he himself was as responsible as any one man for the growth of the packaging shows, conferences and associations. With a background of experience as a package user, he became secretary and packaging *major domo* of the American Management Assn. in 1935 and served in that post for 13 years. Since 1948 he has been president of Container Laboratories, Inc., one of the nation's largest firms of package engineering consultants.



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on-the-Delaware" and came out with a full-blown Institute.

Herb Leonard was elected the first president of PMMI and is rivaled only by the late F.D.R. in his number of terms in office.

From these modest beginnings, the Institute has grown in size and usefulness until today its membership represents approximately 80% of the general-purpose packaging-machinery industry.

The World War II record of PMMI members in diverting their production to war equipment is worthy of special mention. The Institute's committee work in such fields as patent protection, service and installations has produced simlified industry practices of benefit to machinery manufacturers and package producers alike. Both also gain by the use of the association's information service. Of course, they hold meetings. These are held frequently and in general are restricted to members, but, again, the end product is used for the benefit of their customers—the packaging field.

However, all of this was not accomplished without some growing pains and a fairly brief interval of loss of identity as a separate organization. We will have to go back a little and slightly at a tangent to tell the story.

HERBERT H. LEONARD was the first and frequently re-elected president of the Packaging Machinery Mfrs. Institute. This appreciative scroll was presented to him by his PMMI associates in 1939. Former head of Consolidated Packaging Machinery Co. and American Machine & Foundry Co., he is now retired and lives in Vermont.



The Packaging Institute

In July of 1936, E. E. Finch of Karl Kiefer Machine Co. invited a small group of package production managers to a meeting in Cincinnati for the purpose of forming "a nationwide professional association to include production executives of the many different lines of industry which manufacture packaged products of all kinds." The view of the group was to limit membership to companies in the foods, drugs, cosmetics, liquor, soaps and household products fields. Today their specification would cover just about all industry.

If you listen to the men who attended—now almost without exception numbered among their companies' top brass—the real aim was to get better recognition and publicity for the "forgotten man"—the production manager. Also, there may have been a little non-professional commercialism hidden away in the back of the founding fathers' minds, in that it was not too bad an idea to tie together the package-machinery manufacturers and the men who controlled machinery purchases.

William M. (Bill) Bristol, Jr., vice president of Bristol-Myers Co., was the first and only president and at the drop of a hat he will show you the scars, as unfortunately the venture did not prosper. An association, like any other venture, needs money—and that the National Assn. of Production Managers did not have. Also, the diverse character of the membership and its geographical spread added to the problems of growth and effective operation.

Bill, however, was neither accustomed nor content to be associated with failure, which led him to a logical and feasible means of perpetuating the group—a merger with the machinery men. All those who attended the meeting of the Package Machinery Manufacturers Institute at the Westchester Country Club in the fall of 1938 will remember his eloquent and persuasive presentation. Many, in view of his successful effort, wondered whether or not he was not miscast as a production man, as he consummated the sale of a not-too-attractive product to a far-from-enthusiastic customer.

The plan advanced was for an institute to comprise three aspects of packaging—production, machinery and materials—each a separate but integral part of the group. There is one important factor of interest here, in that the Packaging Machinery Manufacturers Institute insisted on maintaining its identity within the framework of the new group; this led to repercussions later.

As a result of these discussions the Packaging



CHARTER MEMBERS of Packaging Machinery Mfrs. Institute standing at the head table when this photo was taken at 15th Annual Meeting, Springfield, Mass., in 1947. Left to right: Harry L. Cohen, S & S Corrugated Paper Machinery Co.; Carl E. Schaeffer, Stokes & Smith Co.; Louis R. Muskat, Triangle Package Machinery Co.; Charles L. Barr, F. B. Redington Co.; Kendall L. Doble, Pneumatic Scale Corp.; Roger L. Putnam, Package Machinery Co. (now Economic Stabilization Administrator); H. Kirke Becker, Peters Machinery Co.; George W. von Hofe, New Jersey Machine Corp.; Bryant W. Langston, Samuel N. Langston Co.; G. P. Fuller, Dexter Folder Co.; E. G. Kuhn, Consolidated Packaging Machinery Corp.

Institute was incorporated in 1939 and at its first meeting at the Edgewater Beach Hotel in Chicago who do you think was elected President? Why, Bill Bristol, of course. Miss Helen Stratton, who had been secretary of the Packaging Machinery Manufacturers Institute since its inception, became the first secretary of the Packaging Institute. Helen, who has devoted her adult life to packaging in the association field, must be numbered among those whose names belong on the honor roll for accomplishment.

In 1946, due to unacceptable adjustments in the organization of the Packaging Institute, the machinery men withdrew as a group, with Miss Stratton, and since have conducted PMMI as a separate entity. Many, if not all, of the machinery companies retain their individual PI memberships and are active in its work.

Meanwhile, the Packaging Institute has made rapid progress as a professional association and has waxed stronger in membership and influence. To one man's mind, the credit for the initial impetus to PI as the packaging production and technical men's group should go to Joel Y. Lund, executive vice president of Lambert Pharmacal Co., who succeeded Bill Bristol as president. Joel, a founder of both NAPM and Packaging Institute, with a good background and grasp of association work, took an all-important step in 1942. He moved the Institute meetings out of country clubs and staged full-blown conferences, patterned on AMA's successful technique, in hotel ballrooms. Attendance jumped quickly from some 80 to over 700. This change in policy had the added virtue of providing much-needed funds for expansion of activities.

In the ensuing years the Packaging Institute has had its ups and downs, but lately has strengthened its position and today is recognized as a responsible medium for the exchange of practical information in the packaging field. Through its Forums, committee activities and information service, it fills a needed place in association work. The practical accomplishments of some of its technical committees is particularly worthy of commendation and support. Its annual Forums today have grown to a point where attendance approximates that of the AMA. Its functions and membership are sufficiently distinct from those of AMA so that there is no conflict between the two.

The history of the packaging associations is the story of men. Twenty years ago the attitude of management toward the giving of their company's time and money to such activities was vastly different than it is today. This change of heart has come about through devotion to the job by a relatively small group of men, some no longer with us, who will always occupy a niche in the hall of fame of packaging. In many instances, the baton has already been passed to a new generation which gives every indication of doing the next lap in the race even faster.

Through the years to come, where training is needed, experience is exchanged, development planned and management information required, there will be found the professional packaging associations hand in hand with industry. It must be an immense source of satisfaction to the pioneers to know they have builded so well.

Anniversary mailbag

ANNIVERSARY 25 1927-52

The Silver Anniversary of a magazine is, like a Silver Wedding Day, the occasion for congratulations from old friends. The publishers and editors of MODERN PACKAGING have been amazed and more than gratified at the letters that have poured across their desks in the last two months, since the word got around that this magazine was having its 25th birthday. It would be impossible to publish all of them. But we are proud to present here some illuminating excerpts from the comments of men who are known throughout the packaging world. To all of the congratulations, spoken and unspoken, a sincere "Thank you" and a pledge to do all in our power to merit this high estimation:

When you started your magazine 25 years ago, I know that many people thought that the packaging industry was too small to support even a token trade paper. After 25 years you and all your friends can be proud of the success you have made.

You have not just participated in the growth of what is now a great industry; you have actively promoted, encouraged and even led that growth. You can look back with pride on 25 years of great accomplishment that affects the lives of very single American. All the members of the Package Machinery Co. can look back on a very pleasant association during this whole period and can look forward to long continued association in the future.

As Administrator of the Economic Stabilization Agency, I congratulate you, too, on a long campaign directed toward bringing the public better merchandise at less and less cost.

Roger L. Putnam
Administrator, Economic Stabilization Agency
Washington, D. C.

The 25th anniversary of MODERN PACKAGING is really the birthday occasion of all packaging men. Your pages have both prompted and recorded their progress in industry from a position of incidental necessity to today's place of prime importance in product distribution.

C. O. Kendall
E. R. Squibb & Sons
New York.

. . . It seems but yesterday that you (Mr. Breskin) and Ted Charlton paid me the compliment of coming way out to my office in Hillside, N. J., and unfolded your plan for publishing MODERN PACKAGING. I think you will recall that I was from the first an enthusiastic booster and I guess I must have been one of your first subscribers; anyhow I hope so, for I know of no publication in this field that does such an outstanding job . . . For 25 years it has been both a textbook and a reference library for this industry.

Fortunately, I am in the somewhat unique position of knowing what an important part the members of your organization and MODERN PACKAGING played in the early days of the Packaging Institute. It was of inestimable value to us and if that organization has justified the belief of its founders, then MODERN PACKAGING deserves another "pat on the back." Without the encouragement given to it by your magazine, I don't think the Institute would be in existence today.

As the perennial judge of the annual All-America Packaging Competition, I again was in a position to appreciate what an outstanding incentive that contest was for creating better packages in so many different fields. How grand were the Award Dinners, when all of us in this business of modern packaging could get together, exchange ideas, criticisms and praise.

With a 25-year history of activities and accomplishments such as these, it is obvious that MODERN PACKAGING will continue to fulfill its destiny as a leader in the publishing field.

William M. Bristol
Bristol-Myers Co.
New York.

As your publication has matured, it has rendered a constantly broadening and more efficient service to industry, and I believe can be credited for much of the advance thinking that has gone into the development of packaging techniques as they exist today. In wishing you success for the future, I can assure you that MODERN PACKAGING will remain on my list of "must" reading, where it has been since you first began publication.

Bert W. Martin
Shellmar Products Corp.
Mt. Vernon, Ohio.

Congratulations on MODERN PACKAGING's Silver Anniversary! . . . Where else would we go for the most complete, up-to-date information on the world of packaging?

L. F. Borchardt
General Mills, Inc.
Minneapolis, Minn.

One of the best ways for me to describe my regard for MODERN PACKAGING is to report that I am always waiting for the next issue. It actually seems as though I would lose step with the industry if a copy of your publication failed to show up on my desk regularly.

I remember clearly the time we were first told of the plans for this magazine. Personally, I questioned the availability of sufficient material for such a publication. However, the observance of your 25th anniversary, with the coming March issue, more than justifies the faith you had in its future and proves me entirely wrong on this point.

Certainly MODERN PACKAGING has



stops the eye . . . starts the sale

pack to attract in maryland blue

Here is true double-take packaging. It stops the busiest shoppers . . . stops their eyes and starts the sale. It's double-duty packaging, too. Acts as a strong, practical container and as a powerful advertising, merchandising and selling tool. Maryland Blue Glass makes your product stand out and shout "Buy Me!" So follow the lead of many famous brands . . . pack to attract in Maryland Blue. Write for samples today.

MARYLAND GLASS CORPORATION • BALTIMORE 30, MARYLAND

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come to be recognized as the "bible" of the packaging industry. The continual factual stories on new developments in package design and application of automatic methods have contributed immeasurably toward better packaging of countless products.

Kendall D. Doble
Pneumatic Scale Corp., Ltd.
Quincy, Mass.

MODERN PACKAGING in the past 25 years has been an important factor, perhaps the most important, in raising the packaging industry to its proper place in the industrial world. You have continuously advocated, editorially and by impressive competitive tests, the value of intelligent improvement in packaging, in both structure and design. Your policy has been aggressive, forward-looking and effective.

Having observed throughout the quarter-century your continued progress, may I offer congratulations on your success and express my sincere wishes for an even more brilliant record in the next quarter-century.

Wilbur F. Howell
Robert Gair Co., Inc.
New York.

Twenty-five years ago the package was looked upon in most cases solely as a container. Today, it is viewed as both a container and a sales medium. MODERN PACKAGING has taken the lead in bringing this about.

L. B. Steele
E. I. du Pont De Nemours & Co., Inc.
Wilmington, Del.

It was back in the Robert Gaylord, Inc., days when a smart, well-dressed and energetic young man by the name of Breskin first persuaded us to advertise in his publication. He said that there was a definite field for a magazine to cover the then infant packaging industry. We bought this idea and, I believe, Gaylord was probably the first container company to use the advertising pages of MODERN PACKAGING. We have been in ever since.

Taking stock of the situation 25 years later, we find MODERN PACKAGING occupying a position of distinction among trade publications, with its original one-man staff expanded to include editors who are accepted leaders in the field. . . .

It is difficult to appraise the various factors entering into the tremendous increase in the use of paper products for packaging and shipping, but it is more than a coincidence that the 25 years in which the greatest development has occurred parallels the 25-year history of MODERN PACKAGING.

J. M. Arndt
Gaylord Container Corp.
St. Louis, Mo.

Congratulations on the 25th anniversary of MODERN PACKAGING! This fact makes me pause to reflect on the tremendous strides made by the packaging industry during this time—and that your publication has certainly kept abreast of this advancement, to which it has contributed greatly as well.

As I recall, our company advertised in your first issue and has continued since that time uninterruptedly, which should be proof in itself of the regard in which we hold your magazine. You and your staff have always been highly cooperative, as from time to time many of us here at National have sought your guidance on packaging problems likewise. Our company has advanced during this same era, so we have much in common in having witnessed the same cycle of events—in other words, you and I have watched each other grow up.

Frank Greenwall
National Starch Products, Inc.
New York.

You recognized the beginning of a new trend and have contributed greatly to its acceleration. . . . I think the nicest thing that can be said about any magazine is that its advertisers find that it pays them to use it year after year.

F. L. Triggs
Riegel Paper Corp.
New York.

An anniversary not only is a signal post which marks the passing of time, but also it provides the opportunity to contemplate what has happened during the period of time covered.

MODERN PACKAGING and the packaging industry—so much interrelated—have expanded to such an extent that many do not know of the problems that were met and the amount of work that was required to lay the foundations for their present standing. In those early days we were not really conscious that we had a packaging industry. How well do I remember in those hectic old NRA days the difficulty we had in defining the packaging industry—what it covered and who should be included in it. While packaging operations had been carried on for a number of years by some companies, few had thought that these operations, with the machinery which would be developed together with the necessary supplies, would ever constitute a new industry. MODERN PACKAGING started the thinking along these lines, leading to some 25 men, representing largely the machinery manufacturers supplying the needs of these packaging operations, getting together to become better acquainted. The formation of the Packaging Machinery Manufacturers Institute . . . the present Packaging Institute . . . the participation in the Packaging Exposition . . . the evidence of the great growth and soundness of these institutions are the compensations which are really worthwhile.

Herbert H. Leonard
South Shaftsbury, Vt.

Please accept our hearty congratulations on the successful completion of 25 years of service to all those industries engaged in packaging.

P. J. Martersteck
Joseph E. Seagram & Sons, Inc.
Louisville, Ky.

Since KVP uses many trade papers in many fields, I have greater opportunity than some to observe what makes them tick. Far too many of them tag along in the wake of the industry they serve, like a dinghy behind a cruiser. Some keep abreast. And a few are strong enough at times to pull their industry after them.

As long-time advertisers with you . . . it is comforting to know that MODERN PACKAGING is in the select group that leads rather than follows. Long may you wave!

Glenn Stewart
Kalamazoo Vegetable Parchment Co.
Kalamazoo, Mich.

Certainly it does not seem like 25 years ago that you (Mr. Breskin) first came to me asking if the F. B. Redington Co. would be interested in advertising in a new publication that you proposed to call MODERN PACKAGING. I remember the first issue as though I had just reviewed it—I remember our first ad in it too. I am sure that I did not foresee the value that MODERN PACKAGING would come to represent to the packaging industry. Nor did I

(This article continued on page 346)



SINCE THE '51 SHOW

These are some of the companies which have installed

ARENCO FILLERS

The names tell the story! More and more companies select the versatile Arenco Filler where speed, cleanliness and accuracy are required.

The same Arenco Filler fills products of every consistency—from water-thin suspensions to heavy non-flowing compounds. Container sizes handled range from tiny 1 cc vials to giant 250 cc (8-¾ ounce) tubes. The Arenco also fills jars, ampules, cartridges and other containers.

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Watch it work!
See for yourself!

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High-speed, big volume production of eye-appealing, fast-selling paper products is profitable.

That's where the E. P. (Evenflow Pumping) of ATF-Klingrose rotogravure presses pays off.

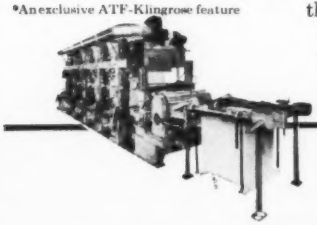
Evenflow Pumping maintains an even flow of ink and uniformity of color at all press speeds. It provides fast semi-automatic wash-up for each color station and simultaneous washing of all stations. It reduces solvent loss by operating circulating water coils on ink return lines to cool the ink to room temperature.

E. P. is just one of the many exclusive features of ATF-Klingrose rotogravure presses which make them the greatest value in rotogravure printing. They are unexcelled for fast multicolor production of packages, labels, gift, food and soap wraps, decorative papers and similar specialties. They print on any type paper stock as well as on cellophane, glassine, foil, kraft, tissue, lightweight board.

Investigate the complete line of ATF-Klingrose rotogravure presses and put their profitable around-the-clock performance to work for you.

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Type faces shown are Century Bold, Century Schoolbook

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PACKED...WITH POSSIBILITIES!

Foamed phenolic resin, a development of Bakelite Company Laboratories is literally "packed with possibilities." One important application answers the need for a lightweight packaging material to reduce packaging and shipping costs. Other applications for this unusual material are being investigated actively.

To prepare this foamed resin liquid, BAKELITE phenolic resin is briefly beaten to incorporate air, mixed with an acidic catalyst, and poured into a simple form. Foaming quickly expands the material to 250 times its original volume. Weight is as low as 0.3 pounds per cubic foot. To obtain the lowest possible cost for packaging, the foamed resin is produced in large blocks which are then cut readily into slabs or pieces of the desired size and shape. Two men can make up to 650 cubic feet per hour.

It is easy to work with foamed resin. Articles to be packaged are gently pushed into a section of the material, then covered with another piece of foamed resin. Or, the article can be placed in a box or carton and surrounded by slabs of the material.

The light weight of the material promotes direct savings in postal and shipping charges. Worker fatigue is lessened. There is greater throughput of packaged items.

Experience to date indicates a considerable reduction of breakage, particularly of fragile items, therefore, lower insurance claims and greater customer goodwill. The fire hazard is also minimized because the bulk storage of conventional flammable packaging materials is no longer a problem.

BAKELITE foamable phenolic resin may be "packed with possibilities" for you, too. For additional information, write Dept. DI-30.

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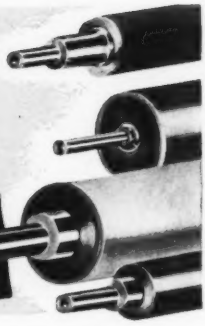
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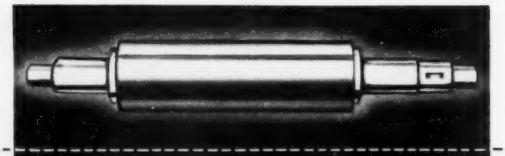
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ground finished

-precision made by experts to the most exacting specifications

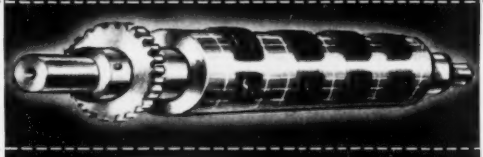


EVENFLO ANILINE INKING ROLLS



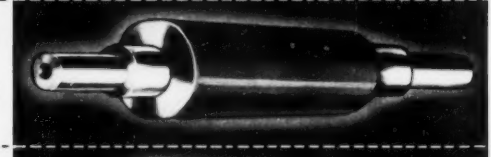
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Can't flex or whip, assure perfect impressions on every run. Tubular construction reduces weight, tests stronger than solid steel. Ground finish to exact specifications.

PAMARCO ROTO-GRAVURE ROLLS



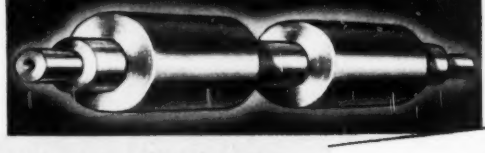
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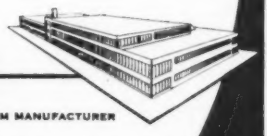
From skilled paper making in the Orange, Texas plant to closely supervised, quality-controlled shipments from the new, fully equipped plant in Long Island City, Equitable is prepared to render prompt, efficient and dependable service. This assures paper bags to meet your exacting requirements with uniformity from one order to the next.

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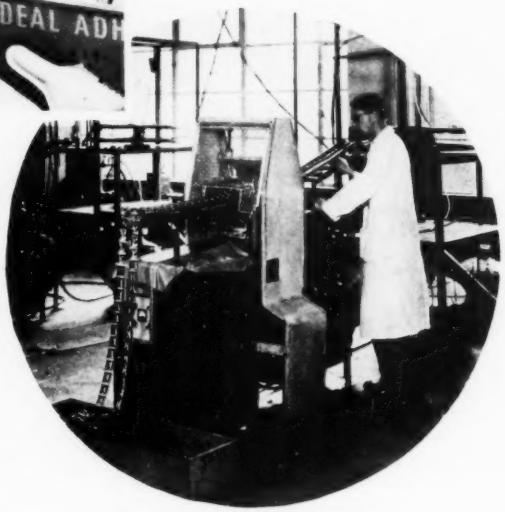
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Type "A" Packaging Machine

*U.S.A. Patent Nos. 2,517,027, 2,530,400
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Factory: 68-7 Rue de l'Agrafe, Anderlecht, BRUSSELS. Tel: 22.19.32.

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Office: Claridenhof, Dreikonigstrasse 21, ZURICH. Tel: (051) 27.24.47/ 25.00.30.
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There was a three-fold packaging problem. The box had to be inexpensive. It had to be definitely identifiable as a gift item. It had to protect and display the "Buttercorn" Brushes, attract the maximum number of impulse sales.

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The sales-making features of this package are the result of Dennison design and production skills. Why not apply these skills to *your* packaging problems? Call the nearest Dennison sales office or write Dennison Manufacturing Co., Box Division, Marlboro, Mass.

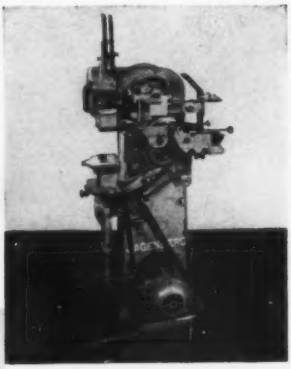
LOOK TO

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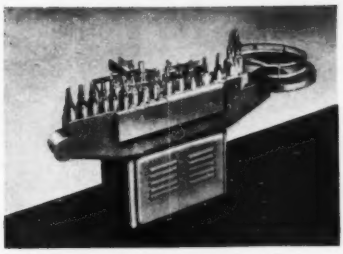
FOR PACKAGING THAT CONFIRMS THE VALUE OF YOUR PRODUCT

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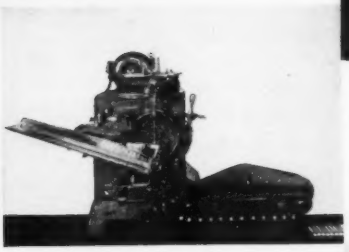
the name that means the finest bottle and package labelling equipment



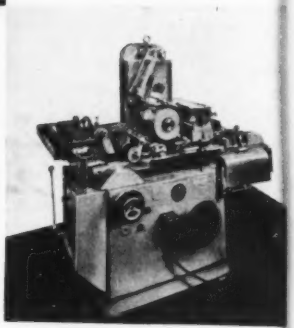
"TYPE III" Versatile universal semi-automatic machine for labelling bottles, jars and flat packages. Applies labels of any shape. Occupies only 20" x 24" space. Output: up to 35 per minute.



"BLITZ" A high speed unit for applying body labels to round bottles, jars and similar cylindrical objects. Output: Model I—150 per minute, Model II—250 per minute.



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Reliability, compact construction, superior production rates and a minimum of package breakage and other stoppages have created a worldwide reputation for excellence for the package labelling equipment designed and built by Jagenberg-Werke A. G., Dusseldorf (West Zone), Germany.

These machines are available through Alfred Hofmann & Co., sole U. S. distributor, who provides nationwide service and stocks all necessary spare parts for quick delivery.

The outstanding performance of Hofmann's low-cost Jagenberg bottle and package labelling equipment merits your further investigation. Write for particulars. Alfred Hofmann & Co. *Showroom and Offices: 635 59th Street, West New York, New Jersey.*

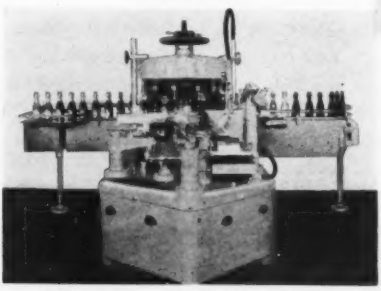
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Type III	Blitz	R.E.A.	Benchpresto

See them perform at the Packaging Show
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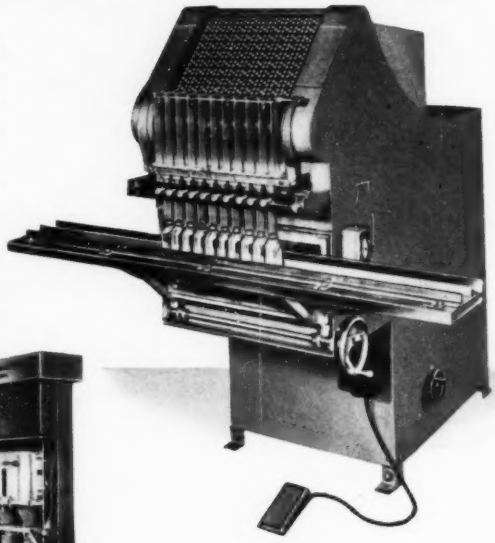
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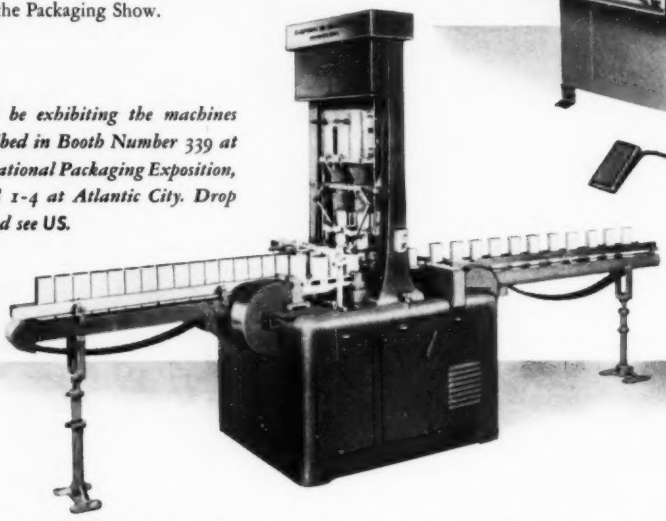
Visit US AT THE SHOW

You'll see these machines in operation

Now being built and offered by **US** is the tablet counting and filling machine that you knew as the Crandall Counter. It is a natural addition to our already well-known tablet filling machinery because it will serve in many applications where its counting and filling method is more suited to a particular product than those of existing machines. The Crandall type machine shown is operator-controlled as to the placing and filling of bottles. It may be optionally equipped with a bottle conveyor and modified for fully automatic operation. See the new automatic model at the Packaging Show.



We'll be exhibiting the machines described in Booth Number 339 at the National Packaging Exposition, April 1-4 at Atlantic City. Drop in and see US.



The Model JK Automatic Filling Machine fills, with closest accuracy, all kinds of powdered and granular materials into cartons, cans or bottles. Normally, operation is to fill under controlled pressure, but for materials that require settling rather than packing, a vibrating filling platform can be furnished. The Model JK is equipped with dust collector hood and positive shut-off gates that eliminate drip at the augers, thus making the entire operation absolutely clean and keeping the surrounding air free from dust. See this twin station high speed powder filler at the Packaging Show or write **US** for details.

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One package



becomes an

entire line

with

Kum-Kleen Pressure-Sensitive Labels



McQuay-Norris faced a problem common among manufacturers—that of maintaining a high inventory of large labels (or containers) carrying various designations (stock numbers, colors, etc).

They found the answer in Kum-Kleen Pressure-Sensitive Labels. For Kum-Kleen labels in combination with Tickopres eliminated large inventories, simplified and speeded imprinting and actually enhanced the attractiveness of the package. Kum-Kleen Pressure-Sensitive labels were also selected because of their positive and permanent adhesion—they never pop or curl off. When used in the Avery Electric Dispenser, they gave them production line speed, plus economy of application—for it is the fastest hand labeling method known.

The net result was a reduction in the number of labels from 40 to 9, a cut in printing cost of 500%, a reduction in labor-labeling cost of 86% and a far faster delivery schedule.

If you are facing such a problem, if you are having difficulty making labels stick to hard-to-label surfaces, if you would like to lower hand labeling costs, send for the complete story on Kum-Kleen Labels.

Kum-Kleen

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- Boost machine efficiency

RETAINING FLAVOR OR AROMA is a problem that often arises in functional packaging. It is a problem Riegel has solved for many different products such as candy, coffee, soap and drugs. What is right for one product is seldom right for another. In one case the answer may be a standard glassine or greaseproof . . . in another it may be a special triple laminated paper. Whatever the answer may be, Riegel can usually tailor-make the right paper . . . quickly, efficiently, economically. Just tell us what you want paper to do for you. Write to *Riegel Paper Corporation, P.O. Box 170, Grand Central Station, New York 17, N. Y.*

Riegel FUNCTIONAL PAPERS FOR PROTECTIVE PACKAGING

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WIRZ TUBES

FROM THE SMALLEST TO THE LARGEST



give your product

CONVENIENCE

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SALES APPEAL

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Write today for your copy of our recently printed folder, "Wirz Collapsible Metal Tubes." It contains useful tube standards and valuable design data.

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packaging exposition
VISQUEEN
Booths
975 and **1074**
lower level



BIG IDEAS DOWNSTAIRS!

Step right on down to Booths 975 and 1074 *on the lower level* at the National Packaging Exposition. That's where you'll find Visqueen. And that's where you'll find some money-saving eye-openers in the latest in smart packaging. *(Packaging with Visqueen, of course!)* Whatever your business, whatever your field—you'll find the Visqueen exhibits interesting, informative and stimulating. In the words of the pitch-man, "you ain't seen nothin'" till you step down to Booths 975 and 1074 *on the lower level.*

Visqueen is all polyethylene but not all polyethylene is Visqueen. Visqueen is the only film produced by process of U.S. Patent No. 2461975. Only Visqueen has the benefit of research and extensive technical experience of The Visking Corporation, pioneers in the development of polyethylene film.

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PRESTON DIVISION • Terre Haute, Indiana

*T. M. The Visking Corporation



Tupper Seal, air and liquid tight flexible covers fit, and are included in the sets of all Tupperware Canisters.



Argentine Patent 74,095 dated Dec. 14th, 1949 on invention covered by U. S. Patent 2,487,400 November 8, 1949. Canada Patent 463,387 Feb. 28th, 1950. Union of So. Africa Pat. 8,592 Sept. 21st, 1949. Belgium Pat. 491,293 Oct. 15th, 1949. Switzerland Patent 48,970 Sept. 23rd, 1949. Italy Patent 456,937 September 19th, 1949. Other U. S. and Foreign Patents Pending.

TUPPER! Seals

air and liquid-tight, flexible covers for Tupperware Tumblers, Canisters, Wonder Bowls, Cereal Bowls and many another container of glass, metal and pottery, the contents of which it is desired to keep fresh and wholesome.

TUPPER!



The Tupperware 50 oz. Canister is "standard equipped" with the Tupper Seal, air and liquid-tight flexible Pour All cover.



The Tupper Seal, air and liquid-tight flexible Pour All cover is used on every Tupperware 20 oz. Canister.



The Tupper Seal, air and liquid-tight, Pour All cover as a cover for 46 oz. cans; Tupperware Sauce Dishes and other containers of metal, glass or pottery. Foods easily dispensed without removing entire cover.



The Tupperware Wonder Bowls are usually fitted with Tupper Seal, air and liquid-tight covers.

FORMAL NOTICE! 9th November, 1949

EXCLUSIVE!

U. S. Patent #2,487,400

The Tupper Corporation has attained a position of leadership in this industry by incurring great expense and expending painstaking effort in the development, design, manufacture and exploitation of its many world-known products.

The Tupper Corporation further has anticipated the inevitable attacks to which leadership is subject and has taken measures provided by law to preserve the creative rights to its products, methods and design by patent protection both in the United States and abroad.

Tupper Seals for Tupperware shown in this advertisement are just a few of the forms covered in this manner and are specifically covered by U.S. Patent #2,487,400.

Only the Tupper Corporation, by U.S.Patent #2,487,400 has the right to make, use and vend container closures in connection with any and all types of containers throughout the United States and its territories as covered by the claims of the Patent.

Tupper Corporation will protect, according to law, the exclusive rights above granted

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There's a Tupper Seal, air and liquid-tight flexible cover for Tupperware 2, 5, 8 and 12½ oz. Tumblers too, and these Tupper Seal, covers fit many other containers of metal, glass and crockery.

The Tupper Seal, air and liquid-tight flexible Por Top cover, specially designed as a dispensing cover for specified diameters of containers holding foods such as syrups, salad dressings, catsup.



The cover of the Tupperware Bread Server which serves as a bread tray also is designed to give similar results as Tupper Seal, air and liquid-tight Flexible covers. Keeps contents fresh as no other such container.



When equipped with Tupper Seal, air and liquid-tight, flexible covers, Tupperware Cereal Bowls serve many another purpose.



The Tupper Seal, air and liquid-tight flexible cover made for Tupperware 8 oz. Tumblers also fits and is sold with all Tupperware Funnels as a base when funnels are used as storage containers.

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Pneumatic's 1952 Packaging Review—Every one of these famous products is packaged by Pneumatic equipment . . . world renowned for "lower cost per container" operation.

PNEUMATIC SCALE CORP., LTD., 82 Newport Avenue, Quincy 71, Mass. *Also New York; Chicago; San Francisco; Los Angeles; Seattle and Leeds, England.*

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the bag with extreme moisture-impregnability. Locks moisture out. Protects freshness, flavor, goodness of food by a patented film of rubberized compound held firmly in suspension between two layers of glassine.



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the bag with vacuum-packed freshness. Pliofilm* lined, all inner seams are hermatically sealed. Replacing air with inert gas, and sealing top, FLAV-O-TAINER becomes an airtight unit. Used whenever freshness is a must.

*Mfd. by Goodyear T. & R. Co.





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- *LOS ANGELES, CALIFORNIA*

VOLUME 25
NUMBER 7
MARCH 1952

Modern packaging

Color control

THE SIMPLE ESSENTIALS OF EFFECTIVE COLOR-CONTROL SYSTEMS AS APPLIED BY LEADING PACKAGING PRACTITIONERS TODAY



PHOTOS COURTESY INTERCHEMICAL CORP., PRINTING INK DIV.

COLOR MATCHING begins by pulling proofs on a laboratory press, using experimental batches of ink.

The almost limitless variables encountered in mass-production package printing today are making packagers more aware than ever of the necessity for precise color control and the use of improved methods, either visual or instrumental, that will produce better results.

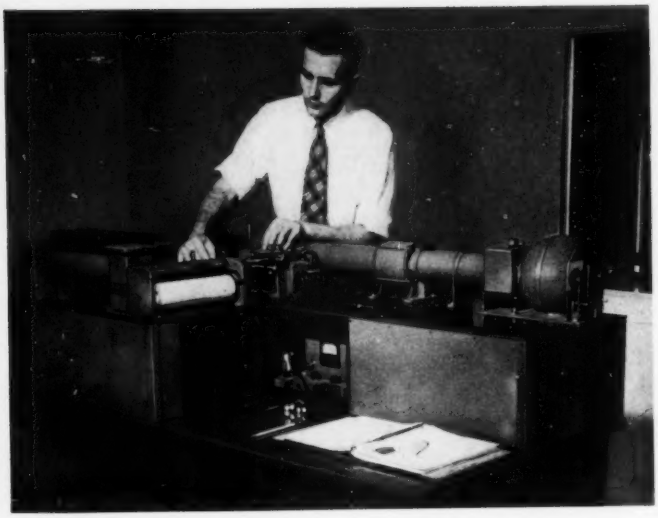
Packages are being made of dozens of different materials and the same packages often are printed in different plants, on a number of different presses by a variety of processes and with inks from countless batches. Yet the colors on those packages which serve as brand identification for the consumer must always be the same familiar color in all cases.

The public has been educated to identify product quality by the brand name and it recognizes that brand by the distinguishing colors of a trademarked design on the packages. If a familiar food package on a grocer's shelf looks faded or scuffed, a shopper may pass it by for one that looks brighter and fresher, or she may select a competing brand if it looks better. A dingy-looking label on a drug package wins the confidence neither of the physician nor the patient. No packager can afford to take chances of lost sales because of poor printing or vacillating colors on his package.

Unfortunately, there is no easy or foolproof formula to assure this color uniformity under all conditions. Yet good color control of package printing —better than many users are getting— is attainable if proper color specifications are established and if the right kind of coordinated effort is applied throughout the entire production processes from the time the designer selects the colors to the delivery of the finished packages.

The theory of color is one of the most abstruse sciences, involving extensive knowledge of physics, psychology, mathematics, chemistry and engineering.

A great many men have devoted entire lifetimes to just one phase of the study and for this very reason it



THE SPECTROPHOTOMETER is a valuable aid in the maintenance of color standards because of its ability to locate and record colors so accurately that any colors with same reading match under like illumination.

is often difficult for the lay person to see the woods for the trees.

The practical application of color knowledge, however, is not complicated and is beginning to take shape in the form of some very effective color-control programs. Believing that an outline of procedure for such programs will be useful to practically all of its readers, MODERN PACKAGING here seeks to enumerate the various steps, with a brief discussion of each, pointing out the reasons why they are essential to good color control of package printing.

Our article is based on the viewpoints of the designer, the supplier of packaging materials, the ink manufacturer and the purchaser of the packages—the four through whose cooperative efforts good color control can be achieved.

1. *Designers' responsibility.* Color control begins with the selection of the package design. Today's designers deserve a great deal of credit for the responsibility they are taking in selecting and adapting colors that are more readily controllable in the printing processes. There is scarcely a day when color samples from leading designers cannot be seen in the laboratories of the leading ink manufacturers, sent there for analysis and the development of pigments and vehicles suitable for producing the desired colors on the packaging materials that are to be used.

The desired colors may be prepared with water-color paints, oil paints or selected from color charts, samples of papers or chips designated by number in accordance with established color systems or color guides. The use of color designations and guides can often simplify the selection of color. However, there are times when a special color for a particular job is wanted that is not located in the color systems or guides. Practically any color can be matched in the ink laboratory, but the good designer will compromise by avoiding colors too difficult to control, which involve pigments or vehicles that make the ink too costly, or which are unsuitable for the packaging materials to be used. And the experienced designer usually knows which colors those are.

Some designers prefer to start with a desired color of their own mixing and will compromise from that point to achieve the closest possible match. An interesting example is a brighter new green chosen for the redesigned Rinso package. While simplifying the surface design of the package, the designer suggested that appearance could be greatly improved by the use of a more brilliant green. He was aware of the difficulties of green printing, but went ahead and prepared with water-color paint a green which he felt would be most suitable. Since greens are often controllable only by the addition of expensive pigments, the original color had to be changed slightly, but compared with the old color it still gives a striking improvement in eye appeal.

There have also been instances where more expensive inks have actually effected savings in packaging costs because they permitted the use of less expensive board which was not so white, but had good appearance when printed with the specially developed ink.

The experienced designer can be very helpful to a large company in the development of an effective color-control system by issuing, during the initial planning stages of a design program, what might be termed a color manual designating all the desired colors to be used. In a redesign program the size of that undertaken by Armour & Co. a few years ago, involving hundreds of different packages, each with its identifying colors, some 50 copies of such a color manual were used by Armour personnel. The color swatches in the manuals were carefully prepared to show through circular openings to eliminate shadows insofar as possible for visual comparisons. These manuals provided a common language for the designer to work with the numerous company divisions through a member of Armour's advertising staff acting as liaison on countless details. The color manuals were an immeasurable aid in developing the right ink formulas to produce the desired matches on an endless variety of packaging materials and to provide a start for later documenting of standard colors.

2. *Suitability of the ink to the use of the printed material.* In the preparation of color specifications, the purchaser of the printing must describe in detail the use of the printed material. Inks as well as packaging materials must meet all the tests of the packaging requirements. For example, inks used on packages for granulated soaps must pass certain tests for product resistance to alkalinity, bleeding of inks, resistance of transfer from one package to another and resistance to fading during normal shelf life. Inks on labels for packages that will be held in wet hands must be water resistant. Many inks must be scuff resistant to withstand shipping and shop wear. Inks for lithography on cans

must be chemically resistant to contents and must resist chipping. Occasionally one may see a collapsible tube from which the enamel has chipped off; this is a sure way to destroy a carefully built reputation for a quality product.

The purchaser must specify whether a flat or a gloss ink is to be used. If gloss inks are selected, the degree of gloss must be determined in advance and a board must be specified that will support the inks during the drying period. All of such information is essential in preparing color printing that will not fail.

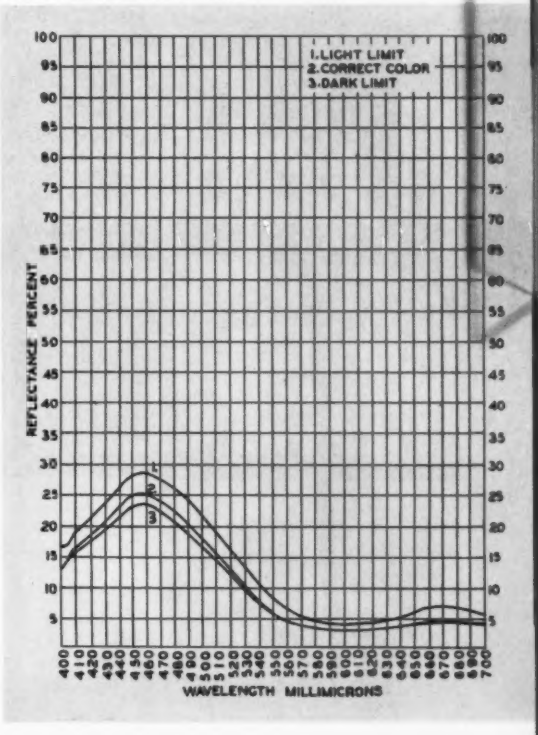
3. *Type of equipment involved in the printing.* Mechanical limitations are important factors in color control and should be discussed with the supplier of the printing during the planning period. The sequence of colors on the presses must be known, as the layout of equipment often determines the type of inks that must be used. For example, a certain drug firm prints the word, "antiseptic," in opaque red on one side of a very light blue carton. With the equipment on which the cartons are printed, the word "antiseptic" must be printed first, then overprinted with the very light blue transparent tint. This necessitates using a transparent blue ink, which is notably more difficult to control than opaque ink. This firm is experiencing considerable difficulty in maintaining a uniform blue—a problem which could be solved if the equipment could be changed to print an opaque blue first and overprint an opaque red. However, changing the equipment is not feasible; therefore the problem must be solved by developing a satisfactory transparent blue ink.

4. *Characteristics of the packaging materials.* There are still printers who say color control is an impossibility because of the difficulty of controlling the raw materials in paper stock or other packaging materials. Much progress toward color uniformity can be made, however, by studying and identifying the characteristics of the supplies. In the case of paper, for example, if such factors as density, weight, whiteness, absorption, chemical characteristics of sizings, etc., are known, there is a much better opportunity to use inks which will approach color specifications closely. When a family of packages is under consideration, it is sometimes necessary to study the characteristics of a number of packaging materials. For example, standard penetration tests in accordance with test procedures outlined by the Folding Paper Box Assn. were conducted recently by an ink maker on eight different samples of paperboard to be used for packaging a line of meat products. The tests were run to illustrate how wide variations in absorption affect varnish finish and color on different stocks. Penetration rates differed from as low as five seconds up to 130 seconds on these samples. With this kind of information, it is possible to prepare inks with the right properties to match the colors and provide the desired gloss on one or all of the materials.

5. *Developing the inks.* When all of the above factors are known, the ink manufacturer has the necessary information to develop the right formulas. Then and only then can he select the correct pigments and proper vehicles to provide the special requirements such as resistance to alkalines, acids, greases, moisture; proper physical properties such as tack, viscosity, etc. Only then can he determine the thickness of film that will do the job, as ink films vary in color with their thickness.

The ink maker submits laboratory proofs of the inks to the purchaser. If by visual tests the proofs are at variance with the designer's samples, further development work is necessary. And quite frequently this happens—sometimes because the match is not sufficiently accurate, but quite often because of a change of opinion as to what the color should be or because samples are viewed under different illuminations. Obviously, the color must look its best in the light where it is going to be most often seen. In the case of packages, this usually means a combination of daylight and fluorescent light, such as is commonly used today in stores. In determining the inks for matching color, however, some standard of illumination for viewing samples should be arrived at. New color-corrected fluorescent lamps in cool white color are said to show promise for this purpose. However, until some standard lamp of this type is more generally accepted, it is a good idea to match color samples both

GRAPH COURTESY COLGATE-PALMOLIVE-PEET CO.



STANDARD color now may be recorded permanently by spectrophotometric curves. This graph shows curves for Super Suds carton blue. Center curve is the standard color; upper curve is the "light" tolerance; bottom curve is the "dark" tolerance. Subsequent readings producing curves outside these limits are considered out of control. The working samples for visual observation, replaced at intervals by conformance to standard curves, prevent color "drifting."

by natural daylight and incandescent light as well as by fluorescent lamps.

Once the proofed samples of the ink are approved as a satisfactory match to the purchaser's or artist's samples, the order may be submitted for a test production run. *No proofs can be considered as insuring the exact color until produced on the actual run.* There are too many variables on the press which may change the color—the setting of the ink fountain or rollers; the time required for drying the inks; variations in the weight and density of the paper across the sheet; atmospheric conditions, etc. When the inks on a test production run appear to match desired colors, they may be approved for actual production. It is not until this point that the color standards may be set.

6. *Establishing the color specifications.* Using the inks that have been developed, the printer is instructed to set a press for the approved color, which is called the Standard Color. By the use of tolerance limits in accordance with statistical quality-control principles,* he increases the amount of ink fed into the press to obtain the "dark tolerance" that will be permitted and reduces the flow of ink below the standard to obtain the variation that will be permitted as the "light tolerance." Thus he establishes the plus and minus deviations from the control standard.

Much of the success of the color-control program depends on the human factor in establishing these limits visually. The limits must be reasonable and they must reflect the colors which will be obtained under practical operating conditions. Many colors can be maintained technically within close tolerances—particularly the very dark colors and black—but the very fact that the eye can detect minute differences in color makes control a more difficult problem. Until recently the printing industry has had no methods for eliminating the psychological variables in color judgment due to differences in human perceptions under different sources of illumination and in juxtaposition to different surrounding colors. Therefore, there has been no way to assure, except visually, uniformity of color from one side of a sheet to the other during an entire run, or from one run to another, or between two plants running the same item. And no two pairs of eyes see exactly alike.

6. *Use of color-analysis instruments.* Instrument methods for color control are becoming more widely adopted, including the various types of colorimeters and the spectrophotometer. The former are being used in a number of press rooms reportedly with considerable success in eliminating a great deal of the guesswork in matching colors, particularly for taking readings of wet inks which will dry out to the same color as the dry color sample.

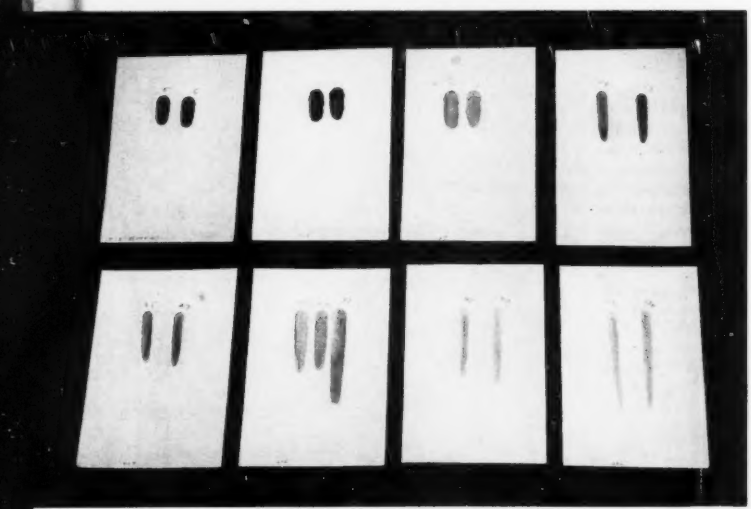
The effectiveness of the spectrophotometer lies in the ability of this instrument to locate a color in three-dimensional color space and record it



INKS AND PAPERS must meet product requirements. Some inks will print through on some wrappers; others will not. Color control must prevent this from happening by proper preparation of color specifications.

* See "Formula for Quality," MODERN PACKAGING, Oct., 1951, p. 65.

PENETRATION TESTS run on eight different samples of paperboard to be used for packaging a line of meat products. A variation of 5 to 130 seconds in the absorption rates indicates how varying characteristics of stock may affect the appearance of varnish finish and ink color.



so accurately that any colors with precisely the same reading will match precisely under any type of illumination. For example, two red samples with the same reading will match in daylight, in incandescent light and in fluorescent light. This does not mean that they will not change in appearance under different light sources, but it does mean that they will change by the same degree and therefore will always match under like illumination.

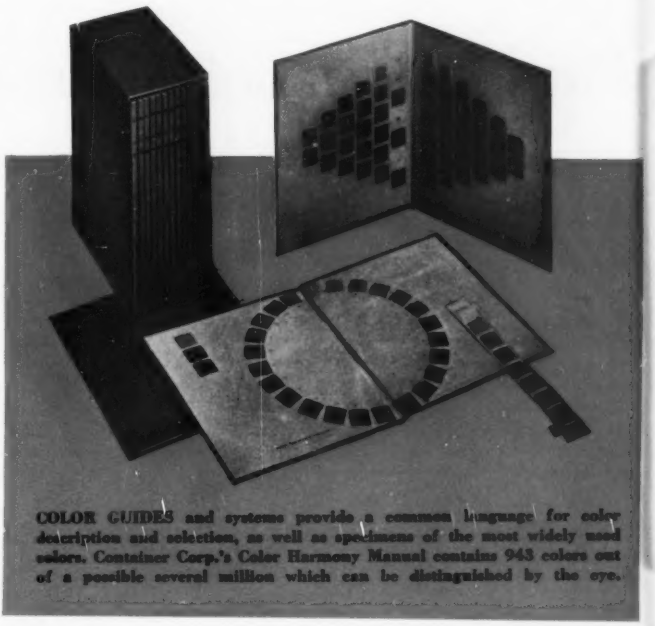
The spectrophotometer is thus a valuable aid in the preparation and maintenance of standard color samples for visual matching. Spectrophotometric curves (see accompanying illustration) specify a physical property —spectral reflectance—which can be converted by manual or automatic computation into a color specification in accordance with the conventions adopted by the International Commission on Illumination in 1931.

More and more purchasers of package printing are using spectrophotometric curves in color control. The instruments are costly and not all firms can afford to purchase them, but leading ink makers and various independent agencies own them and will take readings for a nominal fee.

7. *Maintaining the color specifications.* One of the chief difficulties in the use of samples from the production run as color specifications is that the samples wear out or become soiled and have to be replaced. They also may change color with age. In the past it has been customary to renew the samples in less than a year, making the match by visually comparing new samples with the old ones. This, however, is unsatisfactory and permits many chances for error. There is an instance of a blue with an overprint of varnish which in less than 10 years was changed officially to a definite green—because the people responsible for approving colors never realized that this change was taking place.

Records of spectrophotometric readings taken at the time a desired color is established, with subsequent readings at intervals, can prevent such color "drifting" and are probably the best known means of keeping the specifications in control. Working standards for visual comparisons should be replaced before reflectance characteristics have changed beyond the tolerances. Time intervals depend on the spectrophotometric records.

Working standards should be dated or numbered so that obsolete standards may be discontinued after a certain time interval. In most large firms with effective color-control programs, a color standard is provided for each item in accordance with the spectrophotometric curves that have been accepted as the standard. Where type or illustrative matter is printed one color over another, the additional color is added to the working sample. Duplicates of the color standards are sent to suppliers, each of the purchasing departments and control laboratories. They can thus be used for checking deliveries and to indicate the standard colors that will be accepted.



COLOR GUIDES and systems provide a common language for color description and selection, as well as specimens of the most widely used colors. Container Corp.'s Color Harmony Manual contains 943 colors out of a possible several million which can be distinguished by the eye.

8. *Color systems and guide charts.* Very helpful aids in developing the color-control program are (a) the color systems such as Ostwald and Munsell, The American Standards Assn. Color Specifications and Descriptions, etc., and (b) the color guides and charts prepared by ink manufacturers and trade groups. The former provide a common language for color description and color selection. The latter offer a wide variety of specimens of the most widely accepted colors. An example is the Color Chart of the Glass Container Mfrs. Institute which contains specimens of 40 popular colors to aid the glass container industry and its suppliers in providing their customers with better printing on shipping boxes. Specimen colors shown in ink manufacturers' guide books that can be matched easily by the ink manufacturer also greatly simplify problems of color control.

The time element is one of the biggest stumbling blocks to good color control. To achieve reasonably good results demands the coordinated effort of all concerned, working out the details well in advance of the actual production dates. Those who are experiencing the greatest success are those who have done this kind of step-by-step planning through the entire production process from the time the design is conceived.

Acknowledgements

For information and assistance in the preparation of this article acknowledgment is given to F. L. Wurzburg, Jr., Interchemical Corp., Printing Ink Division; Walter C. Granville, Container Corp. of America; Roy Larsen, Raymond Loewy Associates, and E. H. Balkema, Colgate-Palmolive-Peet Co.



PHOTOS COURTESY H. S. CROCKER CO.

WHICH ONE shows an over-all printed label and which the meat itself? So realistic is the facsimile of a meat slice on the over-all lightproof label inside the package (right) that it gives the same quick impression as former spot-labeled package at left.

Facsimile label for meats

LITHOGRAPHY AS REAL AS REAL CAN BE PROVIDES A LIGHTPROOF LABEL THAT ROBS THE MEAT OF NONE OF ITS SALES APPEAL

With recent studies showing that 70.8% of pre-packaged luncheon-meat purchases made in delicatessen departments of self-service food stores are impulse sales, pre-packagers of these meats are well aware of the importance of giving these products the most appetizing appearance possible. This has not been easy to do.

Luncheon meats deteriorate very rapidly when exposed to light and lose their color and appetizing appearance. A basic problem posed in handling these products has revolved around one question: How to package them attractively for mass display without having this "bloom" destroyed through continued exposure to light.

Luer Packing Co., Los Angeles, like others, has struggled with this problem and has found an answer—an ingeniously designed pictorial-facsimile label giving maximum protection against light spoilage, with exceptional visual sales appeal—which is one of the outstanding solutions offered to date.

Although all-over cards and paper labels have previously been used to keep light from the exposed side of luncheon meats pre-packaged in transparent film, the results of this procedure have not been too satisfactory.

By taking a new approach to the all-over label from the design standpoint, Luer has reconciled its functional usefulness as a light shade with its heretofore unexplored display possibilities. With its new printed labels which feature full-color reproductions of freshly sliced luncheon meats in actual product size with a remarkable *trompe l'oeil* spot "label" centered over the "slice," Luer has transformed the status of such protective labels from that of a necessary evil to

MASS DISPLAY emphasizes the effectiveness of this new technique which seems to show the meat in all of its taste-tempting glory, yet is successful in hiding it from the harmful effects of exposure to light.



a positive sales advantage. The transformation was accomplished through the combined efforts of company officials, technicians on the staff of the label- and wrapping-machinery suppliers and the package designer who had worked on restyling the company's packaging several years ago.*

The redesign project for the luncheon-meat labels, as conceived by the package designer and Albert Luer, the company president, included not only the subject matter and reproduction methods to be employed, but a re-evaluation of the type of paper stock and protective coatings which should be selected for use to insure greaseproofness and moistureproofness of the labels.

Because of the nature of the products, it was decided to use artist's renderings rather than color photography. One of the finest artists in this field was commissioned to do the final paintings and, working closely with the package designer and label manufacturer on lighographic reproduction details, he made oil paintings for each of the 13 items selected for the initial run.

The label's true-to-life appearance was completed by printing the Luer trademark and mandatory information in a white, oval-shaped center panel whose scalloped edges are shadowed to simulate the appearance of an applied label.

Since the label is used inside the wrapper and therefore is in direct contact with the product, its grease and moisture resistance were factors of prime importance. This proved to be a major difficulty in carrying out the project successfully. It was not until various coatings and methods of coating application were tried out on paper stocks of different types and weights and tested under actual conditions of use that a formula and method were developed that met the requirements. The coating accepted is said to be entirely satisfactory in preventing moisture and grease absorption by the unprinted side or smudging on top.

All of the luncheon meats for which the new labels have been designed are processed in Luer's new "bread slice" shape which allows each slice to be used as a sandwich filling without trimming. As a result, when the labels—cut to the exact shape and dimensions of the slices—are positioned atop the slices, they shield the stack's top surface completely and create the perfect illusion that the meat itself is in view. Using a specially designed automatic wrapping machine, the cellophane overwrap is sealed along the package sides to give a clear view of the display label and to allow inspection of the contents at the back. As an added convenience for the dealer, a small thermoplastic label is applied to the same spot on the outside of each package so that there is no problem of marking the cellophane. The labeling attachment on the wrapping machine was also developed especially for this operation.

Sales representatives of the Luer company report a substantial increase in the number of new outlets handling the pre-packaged luncheon meats, as well as an increase in the display space made available for them in present markets. Sales of hitherto slow-moving items in the line have increased more than proportionately since the redesigned labels have made their appearance.

CREDITS: *Label lithographing and coating, H. S. Crocker Co., Inc., Crocker-Union Div., San Bruno, Calif. Label design, Tinsley T. Jepson, Los Angeles, Calif. Color renderings, Garrett Van Vranken, Los Angeles. Cellophane wraps, E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. Wrapping machine, Hudson-Sharp Machine Co., Green Bay, Wis. Labeling attachment, Oliver Machinery Co., Grand Rapids, Mich.*



PRODUCTION at Luer's includes automatic cellophane wrapping and the application of a thermoplastic price-spot label.

LABEL COURTESY H. S. CROCKER CO.



ACTUAL SAMPLE of one of the new labels shows the realism of the meat reproduction (which was made from an oil painting), the shadow effect on the "spot" label, the excellent greaseproof coating.

* See "A Lift for Luer," MODERN PACKAGING, Aug., 1948, p. 142.



Liquids in film

THE PICKLE POUCH HAS PROGRESSED FROM A NOVELTY TO A STANDARD PACKAGE FORM FOR DOZENS OF LIQUID-PACKED FOODS

It was a startling innovation when brine-packed pickles first appeared in an envelope made of transparent plastic film back about 1939. At that time the H. J. Heinz Co., for example, won an All-America award* for its use of the then novel package. Because of the relatively fragile nature of the package, some people thought it might remain a novelty.

Today, however, flexible containers for liquid-pack products have established a firm and growing acceptance in the modern concept of retail merchandising. Products such as sauerkraut, oysters, salt mackerel, herring, olives and peppers are now packaged, with their liquids, in handy, colorfully printed, heat-sealed film pouches. The film most widely used is a two-ply lamination of Pliofilm, with printing protected on the reverse side of the top ply.

One of the largest pickle brands in the country is reported about ready to come out with a film pack for dills, after several years' experimentation.

The reasons for the transition from a novelty to a practical packaging status are not hard to find and, taken together, demonstrate once again some of the basic principles responsible for the success of any package. These principles are best summed up in terms of convenience factors—meaning, in general, that the container offers unique advantages to the user, measurable selling advantages to the retailer and definite packaging advantages to the packer or producer. Sometimes, of course, a package will thrive on success in only one

* See "The 1939 All-American Competition Awards," MODERN PACKAGING, March, 1940, p. 168.

of these categories, but usually it isn't long before competitive forms overtake it.

It can now be recognized that the transparent film pouch for liquid packs has made the grade in all three important classifications and, in addition, has performed satisfactorily in providing adequate protection against spoilage and leakage during all stages of handling from producer to user.

From the standpoint of the consumer, the film pouch provides these advantages: (1) less shopping time because of ready accessibility in self-service display cases, (2) full visibility and quick identification of product (this is important in view of the freshness demanded, say, of sauerkraut or oysters) and (3) small-unit put-ups designed for a single serving. In addition, the odorproof, leak-tight pouches are easy for the consumer to handle and store, and the containers can sometimes be re-used for keeping other products in the refrigerator. The one-serving put-up is in line with modern shopping trends that often find the housewife increasing variety by limiting the quantities purchased.

Film pouches are convenient for the retailer because they eliminate the old-fashioned chore of fishing pickles and similar liquid-packed products from crocks or tubs, and he does not have to bother with special containers which he, himself, would have to provide for the bulk product. The film pack gets liquid-packed products into the self-service case along with other popular items and, because the containers are odorproof and leak-tight, there is no problem of contamination. The attractively printed transparent pouches have color and life so that they display well and make for fast turnover. Their novelty is an impulse-sale factor.

As a matter of fact, few stores today, other than delicatessens, will bother with dill pickles—for example—to be sold in bulk from barrels or crocks. Thus, without the flexible pouch, the pickle packer would be limited in his merchandising to larger and heavier conventional containers which would be stocked on shelves where they would have little chance to catch impulse sales. That, probably, is the biggest single sales advantage of the flexible unit package.

In addition to the above, the producer-packer realizes a number of other very significant advantages. The packaging operation itself is greatly simplified, since the pouch provides its own label and closure and involves the use of a minimum amount of equipment. The operation is flexible and does not have to be exceedingly large to be economical. The flexibility of the operation particularly lends itself to the problem of frequently adjusted schedules to assure freshly packed products. The film pouches are an economical type of container from the standpoint of materials and line operations, as well as cost of handling and shipping. The one-serving put-up can be an important supplement to his regular line.

The above-mentioned features of the film pouch for liquid-content products should be of more than passing interest to people concerned with packaging, since they are frequently called upon to pass judgment on the new developments that are constantly coming to the fore. Some of these are "morning glories" that bloom only for a short while and then fade from the market scene. This was especially true in regard to some prewar ideas that quickly succumbed to shortages and were never revived.

The film pouch, on the other hand, withstood the enforced interruption caused by wartime materials shortages and is now back stronger than ever. This has come about because it was able to demonstrate the convenience factors requisite to genuine success. Meanwhile, techniques and merchandising practices have been expanded, indicating that this type of operation can be adjusted to meet varying requirements as to volume and kind of product packaged.

That experience has proved the idea sound is indicated by the fact that J. G. Van Holten & Sons, one of the firms that pioneered this packaging method, is today by far the largest user of this method and has the most diversified line of products packed in Liquid Film† pouches.

The R. Stenzel Pickle Products Co. of San Leandro, Calif., is one of the

† A patented product of Shellmar Products Corp., which also holds patents on the method of fabrication of the pouches and a trademark registration on the name.



SAUERKRAUT and salt fillets have become important users of the flexible liquid pack. Kissling's sauerkraut package is partially vacuumized to remove gas before it is sealed.

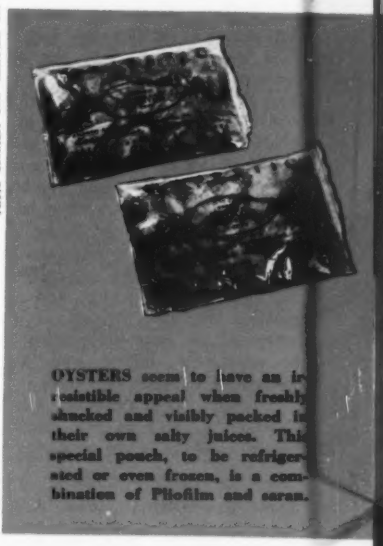
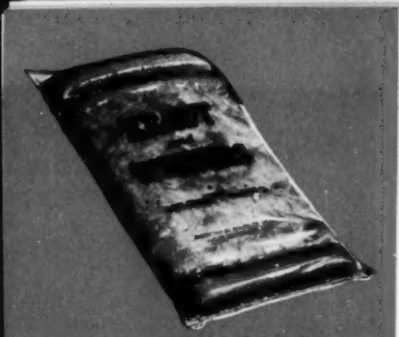


PHOTO COURTESY DOW CHEMICAL CO.

OYSTERS seem to have an irresistible appeal when freshly shucked and visibly packed in their own salty juices. This special pouch, to be refrigerated or even frozen, is a combination of Pliofilm and saran.



TWO TYPES of fish packages used by Rogay Food Co. Note suggestions for serving on the salt mackerel package—as a snack, for breakfast or dinner.



APPETIZING COMBINATION is sauerkraut and weiners packaged by the Mane Sausage & Provision Co. of Cincinnati.

firms reporting increased success with the film pouch. Stenzel uses laminated Pliofilm pouches for sour, dill, kosher-style dill and sweet pickles, as well as for olives and peppers. The bags are printed on the inner surface of the outer lamination so that the inks will be unaffected by the dampness and corrosive atmosphere prevailing in the pickle plant.

The pickles are packaged by a specially designed bag-filling machine, after a pre-sort on a sorting table. Bags are placed on the filling machine by a trained operator and the pickles are fed into the bags. A quantity of brine is added and the pouches are run through a heat sealer. At this point the pouches are inspected for leakers and then packed in shipping containers.

Seashore Food Products, Miami Beach, Fla., is using film pouches very successfully in the packaging of sauerkraut. The pouches hold 16 oz. of kraut, a size designed to appeal to smaller families. The kraut is packed in bags, which are then weighed on over-and-under scales before proceeding by conveyor to a brining spigot, where they are filled with sauerkraut juice. The bags are heat sealed, by a machine employing both heating and cooling elements, at a rate of 60 bags a minute.

According to Harry Kapchuk of Seashore, the firm has adopted the Pliofilm bag in preference to a glass jar for the following reasons: "It is less expensive to pack; a 16-oz. Pliofilm bag is cheaper than a 16-oz. jar and we eliminate the expense of a jar cap. Consequently we are able to pass this saving on to our customers. There are no label difficulties; the label is printed on the Pliofilm bag, which eliminates labels coming off the jars, curling, etc. The Pliofilm 'food saver' bag may be used again by the housewife for keeping other perishable foods fresh in the refrigerator. The package is more attractive than the jar of sauerkraut and gives the appearance of containing more than the same amount when packed in a glass jar."

Another firm, A. C. Kissling, in Philadelphia, markets salt mackerel in a bag and also a vacuumized package of sauerkraut.** A small vacuum sealer removes entrapped air and excess gas from the bag just prior to sealing. This makes for a flatter pack with more even brine distribution and prevents build-up of gas that might cause some bags to break. According to a company spokesman, this package has succeeded even better than expected, with sales tripling in the three years it has been on the market. The package has taken sauerkraut out of the tub in a refrigerator, where the customer did not see it, and has displayed the product for fast turnover. This in turn has converted sauerkraut to an all-season item; formerly Kissling did not market the product in summer.

A list of firms now using liquid-pack pouches for dill or sour pickles includes, in addition to the companies mentioned above: Allied Foods, Los Angeles; Heifetz Pickling Co., St. Louis; Masher & Co., Troy, N.Y.; Kuner-Empson Co., Brighton, Colo.; T. L. Brice Co., Sherman, Tex.; Missouri Pickle Co., Los Angeles, and A. Gross & Sons, Philadelphia.

Sauerkraut packers include C. C. Lang & Son, Inc., Baltimore; America's Own Packing Co., Brooklyn, N.Y., and M. Marx, Inc., Newark, N.J. Packaging salt mackerel fillets in brine—another item of growing popularity—are S. Freilich, Philadelphia; Rogay Food Co., Philadelphia; Southgate Foods, Norfolk, Va.; American Stores Co., Philadelphia; and Charles Ernst's Sons, Philadelphia.

A combination pack of sauerkraut and weiners has recently been packaged by Mane Sausage & Provision Co., Cincinnati. Oysters in their natural juice are put up by Atlantic Packing Co., Baltimore (using a saran-Pliofilm lamination), and by Greenwich Oyster Co., Greenwich, N.J.

Decorative treatments of the packages vary widely, but most are well designed for self-service impact, are printed in two or three colors, leaving plenty of transparent area for a good view of the product, and practically all provide a white price spot on the front panel. Many have a dotted line across the top of the bag with instructions, "To open, cut along this line," for it would be practically impossible to tear open the bags.

CREDITS: *"Liquid Film" bags and bag-making roll stock, Shellmar Products Corp., Mt. Vernon, Ohio, using Goodyear Pliofilm and Dow saran. Heat sealers (Stenzel pickles, Seashore sauerkraut), Ralph Chaffee & Co., San Francisco. Bag filler, (Stenzel pickles), Dudley Machine Corp., Mountain View, Calif.*

** See "Vacuumizing Heat Sealer," MODERN PACKAGING, April, 1949, p. 168.





PHOTO COURTESY SEASHORE FOOD PRODUCTS.

MORE ECONOMICAL, pouch is preferred by Seashore Food Products for sauerkraut in 16-oz. size. In typical operation below, bags are filled and weighed by hand; passed through rotary heat sealer.

Out of the gunny sack

A SIMPLE, TELESCOPING CORRUGATED CONTAINER SOLVES WAREHOUSING AND MERCHANDISING PROBLEMS FOR RUBBER-HOSE MAKER

Adoption of a completely new type of package for wholesale quantities of rubber hose has resulted in a number of advantages for Electric Hose & Rubber Co., Wilmington, Del., the world's largest producer of rubber hose. This company manufactures approximately 160 different types and diameters of rubber hose, which are shipped to industrial users, including coupling manufacturers, who may reship in custom lengths after the couplings have been applied.

Until about a year ago, Electric Hose & Rubber used tied burlap bags for warehousing and shipping the hose. The burlap bags, however, presented several serious problems. Being an amorphous type of package, it afforded the hose but very little protection from dirt and from crushing or bruising during handling and shipping. In the warehouse the unwieldy bags prevented stacking or piling the hose inventory high enough, making it necessary to spread the product around and take up much valuable floor space. Despite the most careful efforts, the company's warehouse presented a somewhat chaotic appearance, as shown in an accompanying photograph. Finally, the burlap bag could not be attractively marked to provide any effective sort of brand identification.

In an effort to rectify this situation, Electric Hose & Rubber studied the problem with a large supplier of paperboard boxes and corrugated shipping containers. The result of this cooperative project was the development of an octagonal-style, full-telescoping corrugated container which is compressed by means of two bands of steel strapping after being packed and closed. The shape of the heavy-duty container is ideal for coiled lengths of hose and keeps the amount of corrugated stock required to a minimum. Corners of the body and cover are joined securely by means of metal staples.

One of the outstanding features of the new packaging program built around this container is its relative simplicity as compared to the earlier activity. With the new-type package, Electric Hose & Rubber is now able to accommodate all 160 sizes and types of hose in only three package sizes. Variations in lengths of the coiled hoses are met merely by telescoping the container halves together as tightly as the contents will permit. At the same time, the octagonal box affords excellent protection against dirt and guards the hose against crushing or bruising.

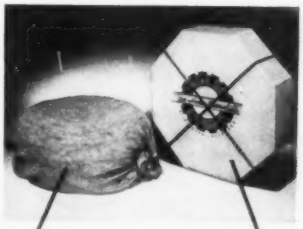
The new package is also much easier to handle and permits the use of steel racks in the warehouse area. In direct contrast to the former inefficient warehousing methods required, packaged hose can now be stacked all the way to the ceiling, freeing much valuable space previously required for hose storage.

The telescoping feature of the container also makes it possible for a warehouseman to open the package, remove a portion of the contents for separate shipment and reclose it for use on another order.

Customers of Electric Hose & Rubber also prefer the new package because it is much easier to handle, insures arrival of the product in better condition and also may be conveniently re-used if desired for further shipments to their own accounts. Finally, the new package, with its attractive design printed in black and orange, provides positive brand identification.

CREDITS: *Octagonal corrugated containers, Container Corp. of America, Chicago. Steel strapping, Signode Steel Strapping Co., Chicago.*

CONTRAST anonymous burlap bags with well-identified corrugated box.



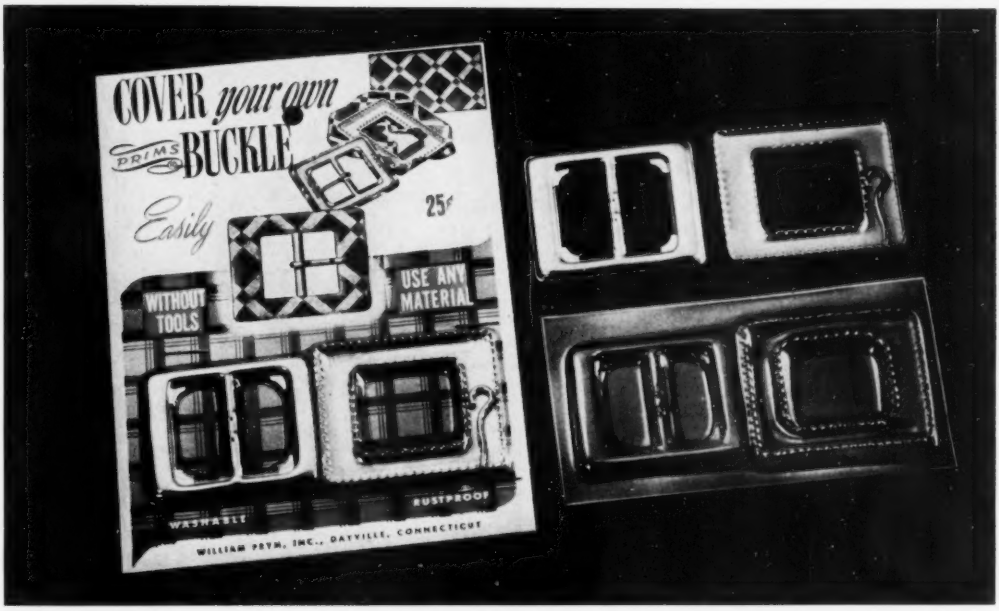
BEFORE



AFTER



PHOTOS COURTESY CONTAINER CORP. OF AMERICA.



FORMED PIECE is made with inexpensive mold to conform precisely to the shape of the buckle components and is then stapled to the card. The buckle parts are clearly visible underneath the transparent plastic and protected against handling.

Transparent carding

NEW METHOD USING CONFORMED ACETATE TO MOUNT OBJECTS ON CARDS PROVIDES PROTECTED VISIBILITY AT LOW COST

The carding of merchandise is one of the most universally accepted, most convenient forms of packaging for variety-store selling. For years, however, users of this medium have been looking for more efficient and more attractive ways of affixing one or more items to a card that will take the beating merchandise must withstand in open display.

An ingenious new method of carding, already reaching sizable commercial application, appears to have unlimited possibilities for solving these problems. The method consists of mounting one or more objects on a card beneath a piece of acetate sheet, economically drawn and conformed exactly to the shape of the object itself.

The development, for which a patent is pending, is one of the most logical mass-production applications of rigid transparent sheet and it has many advantages for: (1) supplying a low-cost package unit, (2) simplifying the packaging of multiple units, (3) giving quick visual demonstration, (4) providing a tamperproof unit and (5) covering the merchandise to prevent handling.

The first company to see the possibilities of this type of packaging and to place production orders was William Prym, Inc., Dayville, Conn., for use on its home-dressmaking cover-buckles and cover-button merchandise.

Previously the buckles had been placed in a heat-sealed polyethylene bag with a heat seal down the center, forming two compartments. The two halves of the buckles were placed in the two compartments and the envelope folded over and stapled to a card. Now the buckle components are easily assembled and held securely under the formed acetate piece, clearly visible for the shopper to see and to understand at a glance how the buckle works.

Prym's buttons for the home sewer to cover are comprised of three components and the button assemblies are carded three, four or five to a card, depending on size. Formerly the components have been jumble-packed in a small window carton stapled to a card. It was difficult to see how they went together and how many were in the package. Now the completely assembled buttons are firmly held to the card under the transparent formed piece stapled to the package—neat and completely visible with no chance of coming off.

In addition to improved appearance and convenience, the user of the packages has been able to save about ¼ of a cent a card over the old method of assembly—a very sizable amount when figured for the millions of these items sold in a year over 5-&-10 counters.

Another technique for use of the transparent formed pieces on carded packages has been adopted by Schnefel Bros., manufacturers of La Cross manicure products, to package instruments such as nail clippers, eyebrow tweezers, etc. For this type of merchandise the rigid formed acetate piece is inserted through a properly die-cut hole in a fold-over card. Remoistening glue is placed on the inside of this card so that the assembly worker merely places the instrument in the formed acetate piece, moistens the glue inside the card and folds the two surfaces together, thereby providing a completely protected rigid package.

In the past, such an instrument was placed on a die-cut card and, in some cases, it was necessary to apply a piece of cellophane tape to hold it in position. The card was then inserted in a cellophane envelope—a package which the firm discovered was not sturdy enough to endure variety-store shop wear.

The new-style package provides what the company believes is a much more attractive and sturdier package at a cost comparable with that of their previous method. It is considering the new transparent carding for other La Cross instruments.

This form of packaging has possibilities for other decorative packaging to meet entirely different market requirements. This is illustrated by a package just adopted by the International Silver Co. Looking for an inexpensive display package for a single serving piece to introduce a new pattern of 1847 Rogers Bros., this company has selected a combination of a formed rigid acetate piece with a quality-printed, high-finish, folded card on which the silverware piece shows through the formed transparent piece mounted in a die-cut opening.

Still another possiblity under consideration is the carding of lipsticks in this manner to make them tamperproof. Considerable loss is experienced in the cosmetic trade by lipsticks which become smudged by sampling at the counter. Sampler units for testing colors, plus tamperproof carded packages with the lipsticks covered by the formed sheeting, would eliminate the possibility of this damage. The acetate piece is an efficient idea for carding infant items and small toys to prevent handling, thus offering the kind of clean product that mothers like.

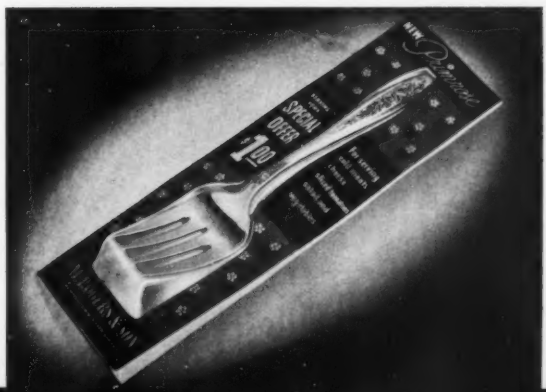
The supplier who has developed this method of packaging will produce and supply the transparent pieces separately, with the printed cards for assembly in the user's own plant or, if desired, will handle the complete packaging job on a contract basis. On the average, the formed pieces cost from $6 to $8 per thousand. Mold costs are reported to be unbelievably modest. For small runs under 50,000, plaster of paris molds have been made for as little as $25. Steel molds run from $50 to $75, so that on runs of any volume there is very little amortization to figure. On the specially built drawing equipment, the rigid formed pieces can be made at extremely high speeds—as many as 2,500 an hour.

All of the applications thus far have used 0.0075 acetate sheet, but other transparent materials and thicknesses may be used if desired or if there is a special reason for their properties. The least expensive type of acetate can be used, as tiny imperfections in the sheet would not be noticeable in this application.

CREDIT: *Rigid transparent formed pieces, equipment for producing them and method of mounting, a development of Shaw-Randall Co., Pawtucket, R.I.*



THREE COMPONENTS of Prym's cover buttons for home sewer are held securely in place under rigid transparent piece. Formerly buttons had to be put in small window carton stapled to the card. La Cross Pedi-Trimmer is held under acetate piece inserted through die-cut opening in fold-over card secured by remoistening the glue placed on inside of card.



SILVERWARE pattern is introduced in a package combining a formed rigid acetate piece with a quality-printed, high-finish, folded card, on which the silverware piece shows through the transparent piece inserted through the card's die-cut opening.

Pancakes to the fore

FRONT-PANEL PRODUCT VIGNETTE AND A UNIQUE NEW POURING PLUG HIGHLIGHT LATEST REDESIGN FOR AUNT JEMIMA MIX

One of the nation's most familiar food packages—that used for Quaker Oats Co.'s Aunt Jemima family of ready-prepared mixes for pancakes, waffles and buckwheats—is now reaching retail outlets in an attractively modified design which gives it greater appetite appeal and merchandising impact. So skillfully has the former design been altered, however, that without a side-by-side comparison of the old and new packages, the change that has been made may hardly be realized by the average consumer of these products.

For the first time, a four-color reproduction of a tempting stack of pancakes, topped with butter and syrup, now appears with the famous Aunt Jemima trademark on the front of every package. The new product illustration dominates the lower half of the display panel, but the smiling portrait of Aunt Jemima keeps the immediate recognition value of the package intact. Her likeness, as painted in 1936 by illustrator Hadden Sundblom and used since that time on the packages, also appears in smaller scale on other vertical surfaces of the package. Combination of the new and old design elements without conflict or impairment of identity has been achieved by reducing the size of the trademark on the display panel and retaining the basic color backgrounds—red for the regular pancake mix and yellow for buckwheats.

Coupled with the introduction of the new package design is the use of a new package convenience feature which greatly simplifies the opening of the packages, makes it easier than ever to measure out the



COMPARISON of old and new labels shows how skillfully the plate of appetizing griddle cakes has been introduced in the most prominent spot on the front panel of the package without loss of recognition of the famous old trademark character.

correct quantity of pancake flour and provides a secure reclosure.

This is Quaker's new "easy pour opener," which was developed under the direction of Edward D. Andrews, vice president of the company's mechanical research division at Akron, Ohio.

The construction details and use of the new plug-type opener on the carton are illustrated in accompanying photographs.

As pointed out in a *Hall of Fame* story (MODERN PACKAGING, Dec., 1949, p. 98), there have been four previous major changes in the Aunt Jemima packages since the first one was introduced in 1889. The earliest package, printed in red and black, featured an Aunt Jemima sketch. In 1916 A. B. Frost, America's leading illustrator of Negro characters, was commissioned to create a new and kindlier Aunt Jemima; his painting was adopted in the package design and used until 1936, when the Sundblom painting mentioned above was incorporated as a trademark in the revised package design. In 1944 a well-known package designer began developing a new package design built around this illustration, which was first introduced to the market in 1946. This marked the last important change in the appearance of the package until the present modification.

Why did The Quaker Oats Co. elect to alter an established package treatment which had become familiar to millions of customers and had ably demonstrated its merchandising capabilities? The answer to that question proves, once again, that packaging must be considered a dynamic and adaptable element in today's highly competitive sales picture. Even the best packages merit periodic re-evaluation and may require design modification to meet the needs of changing sales and merchandising trends.

Officials of Quaker Oats have long recognized the value of appetite appeal on food packages. Prior to authorization of the new design, however, the company has refrained from featuring product illustrations on the boxes until such time as improved printing techniques permitted high fidelity, high-speed reproduction of food illustrations, combining real appetite appeal with reasonable production cost.

How successfully this goal has been attained is immediately evident upon examination of the newly designed wrappers.

An accompanying photograph, showing both front and back panels of the old and new wrappers, dramatically illustrates how injection of appetite appeal has stepped up the sales punch of the package. In full color, of course, the appearance of the stack of pancakes on the package is even more realistic.

This latest package modernization project for the oldest of all prepared packaged mixes was handled by the same package designer who did the last complete redesign in 1946. He worked in close conjunction with Quaker's advertising and sales departments, supplementing his own merchandising knowledge with the company's latest thinking on food-retailing trends. Before putting the new "appetite-appeal" label into actual production and distribution, the company conducted comparative tests in which consumers were shown samples of the old and new wrappers and asked to indicate their choice. Results of these preliminary surveys revealed an overwhelming and decided preference by consumers for the new-style label.

The company and the designer reasoned that since the Aunt Jemima head had long appeared on a number of Quaker Oats products, including flour and cake mixes as well as pancake mixes, the trade character was



PLUG OPENING for pouring is a brand new Quaker Oats idea. Plug is simply held by friction and sealed by carton tight-wrap.



PHOTOS COURTESY QUAKER OATS CO.



DEMONSTRATING use of the easy pour opener. The plug is readily snapped out with the fingers after tearing the overwrap around perforated line and can be replaced after use. It permits the mix to be poured directly into measuring cup without any muss or fuss.

firmly established and identified in the public mind.

With the familiar trademark thus appearing several times in the average grocery outlet, it was possible to reduce the size of the head on the package without sacrificing its recognition value.

Another consideration was largely mechanical. The company was already using four-color printing to obtain proper rendering of the head illustration and the red, white and yellow kerchief. Accordingly, the same colors were available for an appetite-appeal illustration without paying a penalty on the printing. The company and the designer agreed that high-quality product illustrations could be reproduced at reasonable cost and high speed on the regular stock used for the Aunt Jemima tight wraps.

A reduction of the size of the Aunt Jemima trademark left plenty of space on the display panel for the new color illustration. Product illustrations on the back panel, including a stack of pancakes and a waffle topped with butter and syrup, provided the additional appetite and taste appeal needed for the package.

The fact that the ready-mix may be used for waffles as well as pancakes is also included on the display panel of the package. The rectangular blue background just beneath the product illustration mentions both pancakes and waffles. Clip-out recipes for both waffles and pancakes are reproduced on the back of the package, beneath a small Aunt Jemima illustration and the heading, "The *lightest* pancakes and waffles you can make." The top panel of the package includes the product name and a white rectangular price patch of ample size.

Long a leader in the use of premiums, the Aunt Jemima package features a new series of picture-card recipes in conjunction with the revised package design.

There is a complete set of 16 cards, printed in colors in harmless vegetable inks, illustrating famous eating places throughout the United States, such as the Dearborn Inn, Brown Derby and Starlight Roof of the Waldorf-Astoria Hotel. The back of each card carries brief information concerning the place illustrated, along with a well-known recipe with which the location is identified. One card is packed inside each package of Aunt Jemima pancake and waffle mix as well as the buckwheat-cake mix, and the full set may be obtained for 10 cents and one box top. The left side panel of each package is devoted to copy giving information on this premium offer.

The exclusive patented "easy pour opener" cap is used so far only on the 1 lb., 4 oz. size, and on only a limited percentage of the production of that package, but in the near future it is expected that it will be more widely adopted, not only for the pancake and waffle mix, but also for various other packages.

The opener, which works on the same principle as a friction-type plug lid for metal containers, is formed of a single piece of rigid kraft paper. Measuring approximately 1⅞ in. in diameter across the outer flange, the plug is indented about 3/16 in., providing sufficient shoulder so that it snaps firmly into a 1¾-in. opening near the top of the right side panel of the package. Insurance against any possible sifting of contents is provided by the outer package tight-wrap, which is applied over the cap. The location of the circular plug is plainly indicated by a small Aunt Jemima illustration within a dotted circle, having a white background and the notation, "Lift at edge and tear on dotted line." Once the plug has been removed, it is easily replaced to protect the remaining contents until the package is empty.

NEW PREMIUM OFFER is helping to introduce the redesigned package. Each card illustrates a famous eating place and gives one of its favorite recipes on reverse side. One card is included in each package; a complete set of 16 cards can be obtained with a box top and 10 cents.



CREDIT: *Package redesign program, Jim Nash, New York.*



Plastic coke carrier

COCA-COLA'S NEW BRIGHT RED BASKET, MOLDED OF ACETATE, COSTS FIVE TIMES AS MUCH AS PAPER—BUT LASTS 10 TIMES AS LONG

COMPACTNESS and durability of injection-molded carrier have increased the return of empties, reduced bottle breakage. Lettering is hot-die stamped in white. The metal handle is retractable.

A sturdy, sanitary, rigid bottle carrier molded of plastics—so durable that it can be used for at least 50 trips—is now being adopted by both the Oklahoma City and Tulsa, Okla., Coca-Cola bottling companies as a six-bottle carry-home container. The Oklahoma City company, it is reported, expects to use between 200,000 and 300,000 units when the change-over is completed. Except for a rustproof, retractable, metal carrying handle, the plastic carriers, including integral dividers, are injection molded of red acetate—the famous Coca-Cola red—with the trademark and other copy hot-die stamped in white.

While the cost of the plastic carrier ($320 per thousand) is more than five times that of the conventional paperboard carrier ($60 per thousand), the over-all economy in plant and distribution operations will narrow or eliminate this differential, officials of the bottling plants believe. Coca-Cola statistics indicate that the life of a paperboard carrier is 2.7 trips. The new plastic carrier, in addition to a 50- to 75-trip life expectancy, has perfect uniformity which permits trouble-free automatic loading and unloading in the bottling plant, thus practically eliminating bottle breakage loss. Automatic washing equipment, it is reported, is being designed by several bottling-machine suppliers to handle the carrier.

Furthermore, use of the plastic unit is reported to result in a greater efficiency of labor, since it is already assembled, whereas the paperboard units must be squared up and handles straightened before loading.

It has also been found that the plastic carrier encourages complete carrier returns by the consumer. Reasons for this lie in the cleanliness and compactness of the plastic unit, which encourage the user to store a full carrier in a refrigerator where he is reminded to replace the empties and return the unit, and its sturdiness, which reduces the problem of damage that sometimes prevents the consumer from returning empties in the cartons. There is a feeling that the plastic carrier is "too nice" to throw away.

Since the long life expectancy is the carrier's most valuable characteristic, the necessity of cleaning the unit after 15 or 20 trips made it important to incorporate several design features to facilitate washing.

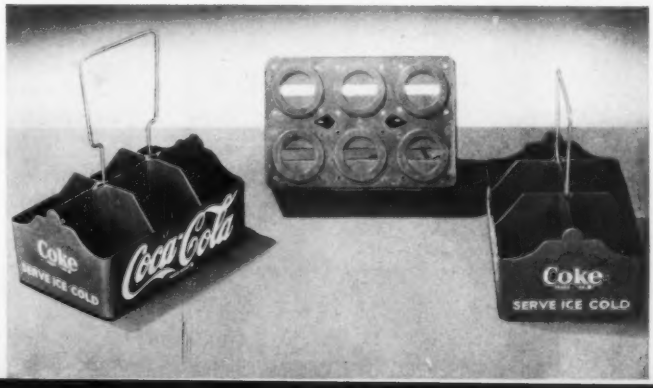
In the bottom wall, each compartment has a rectangular opening so that a stray crown or any foreign matter can be flushed out during the cleansing operation. There are also four small drainage holes in the bottom of each cell. On the under side, six rings have been molded in to prevent the unit from sliding off center when it is stacked for loading or display. These features, combined with the moisture-impervious nature of the container, enable retailers to keep displays outside stores without worry of hasty removal in case of showers.

The debossed effect of the white lettering on the carrier is due to the fact that the hot-die stamping machine applies the trademark and other copy at 1,500 lbs. pressure plus about 350 deg. F. heat, causing a recession of the letters while the white pigment is being removed from the stamping tape.

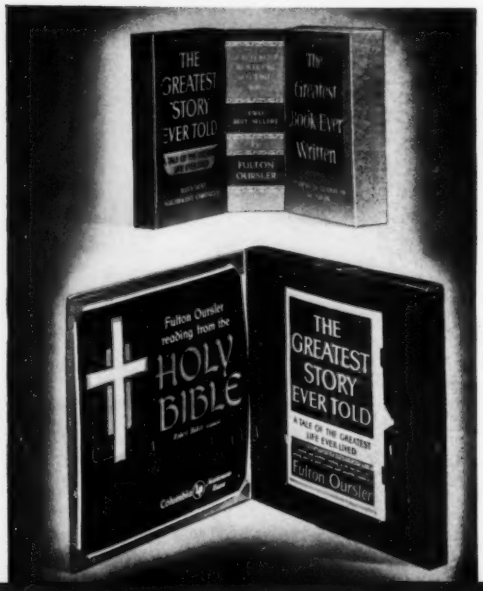
From a display standpoint, the low side walls of the plastic carrier provide greater visibility to the bottles. The brilliance of color and lettering and the clean, sharp appearance catch shoppers' attention.

CREDITS: *Carrier ("Plasti-Cel"), Durable Plastics, Inc., Sherman, Tex. Acetate, Celanese Corp. of America, New York.*

CONSTRUCTION with drainage holes and flushing openings in each compartment wall facilitates cleansing at the bottling plant. These new plastic bottle carriers have a life expectancy of from 50 to 75 trips.



Book packages that promote popular dual offers



Double-duty packages have been adopted by Doubleday & Co. to spur sales of items "happily married" in a combination offer. One package employs a flat-tuck one-piece carton holding companion volumes of Fulton Oursler's popular retelling of the Old and New Testaments. Features of the container are a hinged carton joint and die-cut windows. The carton hasp permits the container to be opened like a book and display the two volumes. The die-cut windows make the book jackets an integral part of the package.

The second package contains and displays a book and a record. The latter is packaged in the customary paper-sleeve jacket and is held in place by corner flaps inside the front cover of the display carton. The cover is glued to the book carton. The idea of packaging books and records together is subject to considerable interest in the publishing and recording industries because of the potential for complementary tie-ins resulting in expanded outlets and increased merchandising opportunities.

CREDIT: *Cartons, Container Corp. of America, Chicago.*

Gruen's latest display container is turquoise styrene



The latest display package to be brought out by The Gruen Watch Co. is a styrene plastic case designed in the shape of a shell. The new package is a part of Gruen's continuing program of increasing jewelers' display containers for added sales possibilities. This shape of case will be used exclusively for the Gruen Autowind self-winding watch so that it will be readily distinguishable from the other display packages in the Gruen line. The plastic case is molded of styrene in a deep turquoise color. Inner padding of velvet is of the same color. A cut-out in the lining of the lid provides space for a satin insert. Inner "collar" holds watch in most advantageous display position. When the lid is closed, the watch automatically falls back in position without the need for any adjustment.

CREDITS: *Display case made by Braun-Crystal Mfg. Co., Inc., Middle Village, N. Y., using Dow styron.*

HISTORIES

Redesign gives greater visibility to Felso

In the highly competitive soap and detergent field, packages are constantly being improved to build up sales. Fels & Co.'s Felso all-purpose detergent, which has been on the market for less than two years, has just undergone a package modernization, based on consumer research and designed to give greater shelf visibility and easier recognition.

The new package conveys the impression that the product is primarily for the family wash. Aimed at the busy housewife who doesn't take time to read copy, the package simply tells her that it "washes clothes cleaner." Studies show that women don't want too much sudsing, nor do they like too little. In secondary display size, the copy—"Just-Right" Suds—is featured in the double fish-tail, the trademark used for all Fels products for more than half a century. The tall condensed type for the Felso name, with its exaggerated height and vertical effect, makes the package look taller when displayed on the shelf.



CREDITS: *Design, Frank Gianninoto & Associates, New York. Cartons, The Ohio Boxboard Co., Rittman, Ohio.*

Two new popular-priced packages for Johnston's

When the Robert A. Johnston Co., an established company with an established line of boxed candies, wanted to add two more brands to its line, the entire problem of creating the package design as well as the brand names and shape of the boxes was placed in the hands of an independent package designer. For the medium-priced field, they had to have mass-market appeal. One of the new brands, called the "Diplomat," exemplifies the current interest in world affairs with its white-bordered red band—similar to the ribbons worn by diplomats at state occasions. The other brand, "Repartee," represents a more frivolous note. Background color is red with a delicate French dip design across the face of the package.



CREDITS: *Design, Brooks Stevens Associates, Milwaukee. Boxes, Forsberg Paper Box Co., Madison, Wis. Box wraps, Philip Lithographing Co., Milwaukee.*

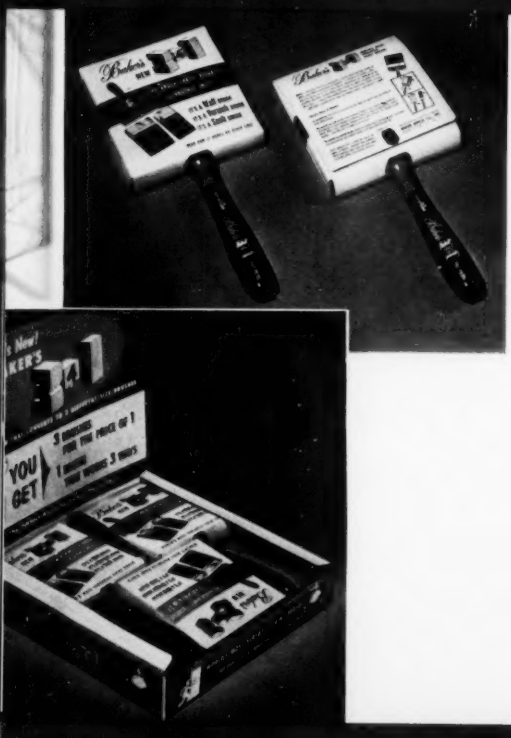
A horizontal package treatment for laundry starch



The Hubinger Co.'s Quick Elastic Laundry Starch—a product that has been on the market more than 70 years—has just undergone its first major packaging change in 20 years. The most notable change is a switch from a vertical to a horizontal package for improved display value. However, a close resemblance to the previous package is retained by the use of the same yellow, red and black colors and the flatiron trademark that has been used since the product was introduced in 1881. Other new features include price spots on three surfaces for the convenience of retailers; special die-cut perforations for greater convenience in opening; a starching guide which prescribes proper solutions for various fabrics. More than a year went into the development of the new design.

CREDITS: *Design consultant, Orvil Davis, New York.*

Story-telling paint brush package



An efficient new method for packaging quality paint brushes has been devised by the Baker Brush Co. to present its revolutionary new "3-4-1" brush. This item, which is actually three brushes in one—a 4-in. wall brush, a 2½-in. varnish brush or a 1½-in. sash brush—provides, in a single brush, all the sizes ordinarily required for doing a complete house-painting job. To display this distinctive feature demanded something more than an ordinary paper wrap. The problem was solved by the company in cooperation with a folding-carton supplier who designed a die-cut and scored sheet of paperboard, held together with a metal tab, that completely covers and protects all sides of the 4-in. bristle section and metal band of the brush but leaves the handle exposed. Thus, two ample surfaces of paperboard are provided for printed explanation of the three-in-one versatility of the brush. A counter display carton to hold the individual packaged units features line drawings of figures doing various paint jobs with the brush.

CREDIT: *Individual packages and display carton, Modern Folding Carton Corp., Brooklyn, N. Y.*

HISTORIES

Convenient new purse-size lotion dispenser

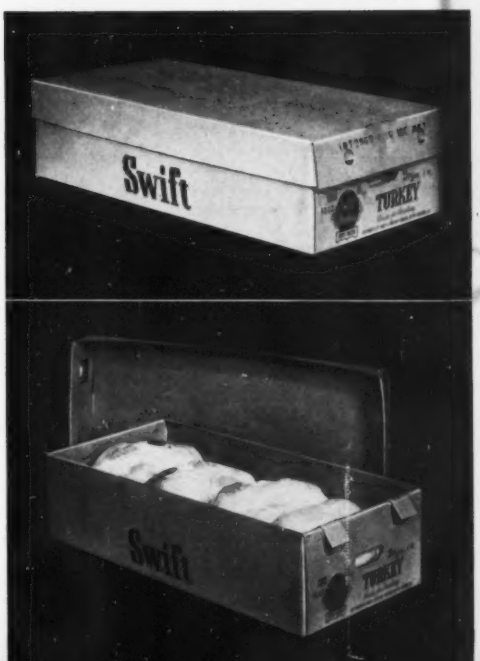
Further evidence of the trend toward purse-sized units for cosmetics is the introduction by Tussy Cosmetiques of this Charme Rose Lotion in a combination plastic and metal purse dispenser package. The unit consists of a tiny molded polyethylene plastic bottle set in a black-lacquered metal base. The natural-colored polyethylene bottle is fitted with a pink urea cap and a natural-colored polyethylene dispensing tip. The slip-on case of polished brass, decorated with the rose motif of the Charme Rose line and the company and trade name wiped in, in black, fits onto the metal base. A light touch of the dispensing tip to the skin releases only the amount desired.



CREDITS: *Polyethylene bottle, Injection Molding Co., Kansas City, Mo. Urea cap (American Cyanamid Beetle), dispensing tip and metal base and cover, Richford Corp., New York.*

Easy-to-set-up turkey boxes

Frozen, pre-packaged turkeys are being shipped by one of the large meat-packing companies in two-piece, die-cut and scored boxes that hold from two to four birds, depending upon the size of the birds and the size of the box. The box blank is set up by first easing tension on all body scores by folding the panels. With the blank flat on the table, end scores are folded and side panels brought into vertical position. End panels are brought together and engaged by means of a locking tongue into the slot from inside of box. When end panels are brought together, triangular tabs are freed by pressing from the inside. The bottom end panel is brought into almost vertical position, then folded over so that tongues may be inserted into locking slits. By keeping tongues as nearly vertical as possible, the box may be locked into position by pressing downward. When the box is completely set up, the lid-locking elements extend from the end panel as shown in the lower photo. The lid is assembled, by easing tension on all scores, folding full end panels over short end flaps and locking them in place.



CREDIT: *Box, Container Corp. of America, Chicago.*



ELBOWS OUT of the carton suggest immediately how the rubber covers are placed over spark plugs for waterproofing. Demonstrator display, of molded polystyrene, has irresistible "try-it" appeal.



CARTON HOLDS plug connectors neatly in die-cut holes. Inside box are springs. Carton has a back slot to hold it on the display card.

Sparky goes to market

A NONDESCRIPT AUTOMOTIVE ACCESSORY IS LAUNCHED AS A SELLING STAR

THROUGH INSIDE-OUT CARTONING AND DEMONSTRATIVE DISPLAY

Sparky is a small rubber spark-plug connector, born of New England ingenuity and manufactured by the National Products Corp. Shaped like an elbow and black in color, its appearance is entirely utilitarian. On its bright red-and-yellow folding carton the product is christened "the spark plug sou'wester," thus quickly identifying its personality as well as its purpose—which is to protect spark plugs against condensation and water splash and thus keep boat and auto motors running even when the going is extremely damp.

Sparky's package, itself, evidences strong touches of Down East know-how, for the package obviously performs every sales task a merchandiser has any right to expect. Sparky packages do this because the product's virtues, which are readily apparent to most mechanically minded prospects on sight, are not hidden away inside the carton, but are openly displayed by neatly mounting the six or eight connectors in a set in die-cut holes along the top and bottom edges of the box. Inside the box are the few springs required in fitting the rubber connectors to the spark-plug wires of a boat or auto motor.

The cartons have die-cut slots on the back panel so they can be mounted on a display card. A demonstrator box is ordinarily used in conjunction with the package display card. The demonstrator unit is a molded polystyrene box which has a Sparky-protected spark plug submerged in a reservoir of water. A card that mounts on the demonstrator box invites the customer to press the button and fire the spark plug, this showing that Sparky "keeps your power dry" even when the plug is totally immersed in the tank of water.

Since Sparky, itself, is a homely, guess-what sort of product, illustrations alone on the package would not be of much help. With a conventional type of package, the customer would have to read the copy on the package, then open the carton and spill out all the springs and connectors, some of which might be lost in the process. The die-cut perforations, on the other hand, firmly hold the Sparkies in place in complete sets and permit effective, time-saving display.

Developing the program

Equally as interesting to the packager as the novel features and performance of the Sparky packages is the story behind the packaging program, for it demonstrates that packaging, if properly considered, can be

a very complex problem. This is true because packaging has ramifications that extend into and affect purchasing, production, shipping, management, sales, advertising and merchandising. If all these segments are not considered and synchronized, then your package is not in focus and never will be until the logical adjustments are made.

The Sparky package, of course, didn't just happen to turn out the way it did. The man who developed and patented Sparky willingly admits he hadn't the least idea how to package it for the consumer on a mass-market basis. For him, the only logical move was to consult his package manufacturer as one source of guidance. The result was that the manufacturer was able to provide a complete and comprehensive packaging job, considering the original product, presentation, container and display designs (both applied and functional), product name, merchandising copy, color design, black and whites, plates, dies and, finally, the actual production of the components.

The advantages of this service, all derived from one source, stem from the fact that it combined the viewpoints and experiences of both the specialist in package structure and the merchandising man. Both are needed in package development, but too seldom are found under the same brain canopy, even in the same package-producing organization. The problem is compounded because the range of imaginative techniques and container vehicles is so extremely wide, yet the use of these should be both professional and precise.

Launching the package

To get Sparky to market, it was decided the product would need "packaging clothes" that would exemplify package sales performance in its fullest sense. The problem, therefore, was to dramatize the innocent-looking rubber elbow and so present it that impulse buying would occur at maximum potential. Furthermore, the product had to enter the hard-hitting automotive accessory field, stand on its own and be heard and "felt" at once. Since the product was unusual, the package, it was reasoned, must be something out of the ordinary.

First and most important, the theory was developed that the molded rubber product in units of six and/or eight should be placed on the outside of the container vehicle and the metal connector springs within. Rough dummies indicated at once that this was sound and, what's more, it produced "dramatic presentation." Best positioning of the product to the vehicle determined the size of the package and ultimately a regular tuck-end folding box, similar to the type used for candy or tubes of tooth paste, was selected.

Next came the problem of choosing a name and answering the questions: Who was to be sold? What age group? Men or women? What outlets? And all the other usual inquiries concerning the market.

It was decided to beam the whole endeavor at the younger group of automobile drivers because they act on quicker impulse, seem to spend money more readily than their elders, are less skeptical and are more susceptible to buying a variety of products. Thus a name had to be young and smart, and if it could be somewhat descriptive of the product or its function or say it in modern slang, that would be all the better. The answer was "Sparky."

Next came "the spark plug sou'wester," followed by "keep your power dry," to provide a quick, friendly description on the package of the product and its use. Thus the sales spearhead was formed and the complete packaging units began to take shape.

The next problem was to apply design and tell the story on proper display media in short, staccato punches and in proper colors to make it quickly obvious to the consumer that here is "that magic gadget—no fooling!" Thus evolved the little symbol of Mr. Sparky, happily walking about in the rain, knowing that nothing can happen because he's well protected even from a deluge.

Design and colors were tied in on the six-on display unit, the Sparky 6 and Sparky 8 folding boxes and the round container for "fleet owners." The latter, a simple cylindrical fibre cannister like the round salt or oatmeal box, is used as a container for replacements used by mechanics. Display, accordingly, is not an important factor, but quick identification and handy access are.

From the inception of the packaging program, one of the objectives was obtaining maximum mileage for the packaging dollar. That meant the product had to ship well and at low cost and furthermore had to be ready for immediate display upon arrival at the retail store. Thus, it was decided to insert the packages on die-cut fingers in the display card so the unit could be mailed ready to use when removed from its shipper.

All through the development, customer assembly problems and costs were considered. Hence the applied design in part became functional by creating round borders or "targets" around the insert holes to help the assemblers hit the holes and thus automatically increase output, lower costs and please modern temperaments of both workers and union stewards.

National Products Corp., manufacturer of Sparky, reports that the package-display materials definitely have won quick favor with wholesalers and jobbers. In the retail stores, the materials went right to work producing sales and repeat orders. Mr. A. G. Cranney, general manager of National Products, says: "In 15 years of business, we have never seen a packaging program so well done and so effective when it comes to making sales."

CREDITS: *Design and manufacture of packages and display cards, Cambridge Paper Box Co., Cambridge, Mass. Polystyrene display unit molded by Waterbury Companies, Inc., Waterbury, Conn.*

IN CONTRAST to consumer-selling packages, a simple canister is used for bulk replacement. But design and color are tied in.



Stick-up promotion

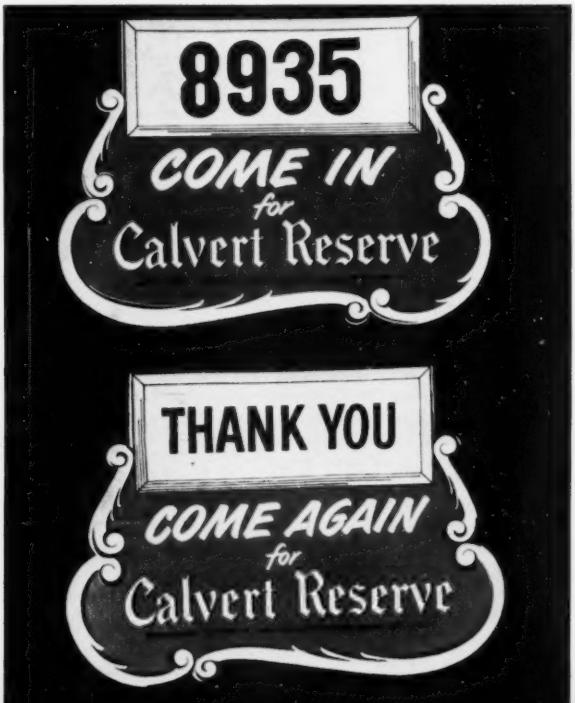
RUBBERY VINYL PLASTIC SIGNS THAT STAY WHERE THEY'RE PUT

HAVE SPECIAL APPEAL AS POINT-OF-SALE REMINDERS



FONT OF NUMBERS supplied with Calvert sign, made of same plastic material, permits the dealer to display his street address on the sign.

DOUBLE MESSAGES are carried by printing on both sides, which are visible through glass surfaces. Calvert door sign invites customer to come in on one side and says, "Thank You, Come Again" on the back.



The Glass Wax sticker on the opposite page is an actual sample of a new kind of colorful point-of-sale advertising sign that needs no adhesive other than its own stick-to-it-ive-ness. In less than a year these intriguing self-sealing, tough, rubber-like flexible plastic display pieces have won their way into thousands of retail outlets to advertise cigarettes, foods, photographic supplies, wines and liquors, household cleaners, automotive supplies, cosmetics and dozens of other packaged products.

They will adhere to glass, metal, plastic, enamel or any other non-porous glossy surface without a moistening agent or adhesive. They can be peeled off with a flick of a finger, without tearing or defacement, so that they may be changed from one location to another.

They appear to be suitable for any product that can profit by the repetition of its name or the reproduction of its package in high-traffic locations. They provide a display medium for new locations where other displays would be unsuitable or where dealers object to units that are not easily removable.

These new point-of-purchase display signs are made of cast polyvinyl chloride plastisol sheeting which, by molecular attraction of one flat surface for another, gives the material its peculiar sticking property.

The signs are being used on store windows and doors, cash registers, backbar mirrors, showcases, shelves, frozen-food cases—even on gasoline pumps. They may be put up with slight finger pressure and will stay up indefinitely. They are washable or easily cleaned with a damp cloth on any surface to which they are attached and are reported to be completely weatherproof, unaffected by prolonged exposure to sunlight, rain, snow or sub-freezing temperatures. They are color printed with vinyl inks so that the pigment becomes fused with the surface and cannot rub off and the printed surface will stick to a smooth surface as readily as the unprinted side.

The signs may be printed on one or both sides, if desired, so that when they are applied to a door glass, both sides carry a message. They can be applied inside frozen-food cabinets, where no other type of sticker will stick. They are so strong they can scarcely be torn by deliberate effort. And the self-sticking characteristic of the plastic is never lost, it is said, even after repeated application.

The effectiveness of the signs is indicated by the experiences of several firms which have already used them.

Among the first users was Calvert Distillers Corp. Calvert introduced the stick-ups for a promotional campaign in January, 1951. The initial sign they ordered measured approximately 9 in. in diameter, printed in three colors on both sides for use on the doors of retail stores and bars. The face of the display invited the customer to come in for Calvert Reserve and the rear said, "Thank You, Come Again."

Salesmen and distributors were so pleased with the ease and novelty of applying the new plastic display pieces that another similar sign was ordered for the company's January, 1952, program. The new unit, while essentially the same as the original, has an added feature welcomed by dealers and applicable in many other instances. A font of numbers, made of the same self-sticking plastic material as the signs, is supplied with each display so that the street address of the store or tavern may be inserted on the sign when it is placed on the door.

Calvert feels the self-sticking plastic signs are especially helpful in overcoming dealer resistance to putting up material of this type because of easy removal and because they can be washed when windows are washed.

The removable feature appeals in almost every instance. McKesson & Robbins reports that dealers like the signs because they can take them off without marring a window and without knife scraping. McKesson & Robbins found out that a dealer who might say, "No, stop!" to a salesman pasting up a conventional, permanent sign on a window or showcase is pleased to let one go up and stay up when he knows he can take it off so easily.

The easy-removal feature, however, does not appear to affect the length of time the displays stay up. In test locations throughout the New York area, signs were still up in many places as long as six months after installation.

The novelty angle has been a big force in winning initial acceptance. The Berghoff Brewing Corp., Fort Wayne, Ind., said its salesmen had a strong talking point when they first took the signs around. Dealers are so intrigued with the self-sticking feature (the material does not feel sticky to the fingers) that they want to try putting them up themselves—and once up, the piece usually stays up.

Berghoff, however, found that signs printed on one side only would be most useful to them, since the majority of



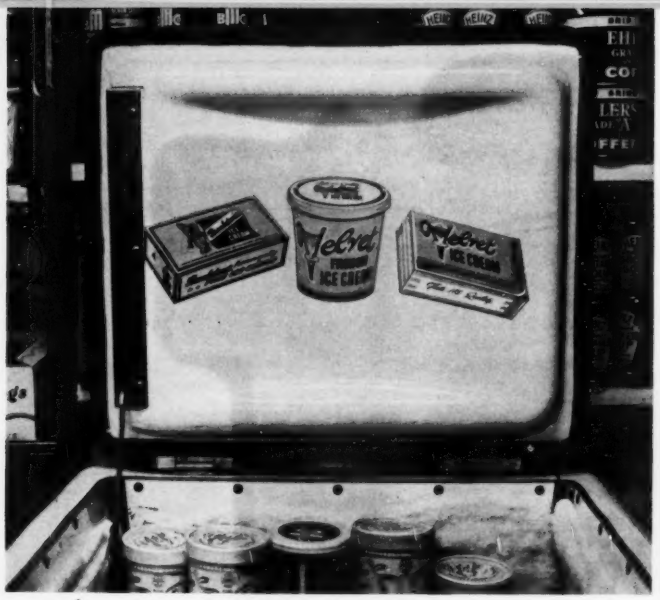
TRY IT YOURSELF. This is an actual sample of the plastic sticker sign as used by Glass Wax. It adheres to this page as it does to any clean, glossy surface. Peel it off and try it on your own window.

CHOICE LOCATIONS are given to these plastic "decals"—on under side of glass counters, on glass showcases. Camel "Don't Forget" sign gets prominent place on cigar counter; Ansco film display and Leica camera unit, in photographic stores.









MOISTURE-RESISTANT feature permits display on refrigerator cases as well as on other surfaces to which other materials will not adhere.



AFTER VIOLENT stretching, signs will return to their original shape, printing undamaged.



PRINTED INSTRUCTIONS for use of the signs are provided on the paper sheets to which the signs are attached when delivered.

their display locations were on opaque surfaces.

The makers of Glass Wax report that the self-sticking signs have been an item of high conversation and high dealer acceptance, perhaps greater in the Middle West where there are less rigid rules for the placing of signs than in Eastern metropolitan retail outlets. The Glass Wax sign, an actual sample of which is attached herewith, is an excellent example showing the reproduction of a package.

Standard Laboratories, Inc., has kept a very close check on the reactions to its self-sticking sign for Sloan's Liniment. Practically all of the company's salesmen have been asking for additional quantities and report that druggists like the "no-glue" and neatness angle, and have little resistance to putting them up in good spots.

Ansco has been using the displays on a test basis in Florida during the winter months and while the company feels it is too early to form any conclusive opinion, it says there is no question about the ease with which they are installed.

This new kind of point-of-sale sign is the result of several years' experimental work by an independent chemist in cooperation with a firm which was looking for new products in case of a scarcity of others. The result was the formation of a new company to produce the self-sticking signs.

The signs are reported to be cast, printed and die-cut in one continuous operation on specially developed equipment. They can be produced in any desired shape to simulate a package, a trademark or even the product itself. Where a price notation is important, areas may be left blank for writing in the amount with a china marking pencil. Such markings may be rubbed off and changed whenever necessary. This is being done on the Borden Co.'s refrigerator sticker for milk.

In quantity, the cost of the plastic signs is reported to be moderate. For example, the cost of a sign 30 sq. in. in area, the most popular size, is only slightly more than 8 cents each in quantities over 25,000. Prices for other sizes range accordingly in relation to size, from 2 to 3 cents for 6 sq. in., in quantities over 25,000 up to 23 or 24 cents for 72 sq. in. And there is no additional cost or labor required for installation or chance for spoilage. The salesman simply sticks the signs to any non-porous surface.

The easy-removal feature of the plastic signs also should make them popular with manufacturers of seasonal items, such as suntan lotion, winter clothing, sun glasses, etc.

CREDIT: *"Adstik" signs manufactured by The Ad-Stik Co., Pittsburgh.*

PRICE MARKS may be put on with china marking pencil when price patches appear on signs.



Fresher chips

PACKET OF DESICCANT AND ACTIVATED CARBON, RIGHT IN THE BAG, REDUCES EFFECTS OF MOISTURE, HEAT, LIGHT



TINY PACKET in potato-chip bags, containing drying and odor-absorbing agents, has been found to lengthen shelf life 10 to 14 days. Copy on back panel explains purpose of packet.

What appears to be an effective method for prolonging the shelf life of many packaged food products whose crispness, flavor and freshness are affected by heat, moisture and light has been originated by Gordon Foods, Inc., Atlanta, Ga., potato-chip processor.

Gordon is now inserting a tiny packet containing a small quantity of activated carbon and silica gel crystals in the package along with the product. Small perforations in the packet, made of cellophane or glassine, permit the crystals to absorb odors and moisture inside the package without danger of contact with the product.

Repeated tests have shown that one packet, placed inside a potato-chip bag, is an effective means of extending freshness and crispness of the chips from 10 days to two weeks longer. The feasibility of its application to retard rancidity and moisture in other food products such as packaged nuts, powdered milk and sugar, chocolate and similar items is now being studied.

Gordon Foods, whose sponsorship of a research study on how to extend the shelf life of its product led to the suitable design of the activated carbon-silica gel packet, has found it most effective. A patent on the idea is pending.

With its large Southern distribution, Gordon Foods faced a problem of product deterioration that increased substantially during summer months when humidity did the most harm. In 1949 Patrick F. O'Brien, president of the company, decided to sponsor a research project at the Georgia Institute of Technology Engineering Experiment Station.

During laboratory aging tests, potato-chip samples were prepared using frying oils treated with various anti-oxidants which have been used to retard rancidity. The samples, packaged in sealed cellophane bags and stapled waxed-paper bags, were incubated under controlled conditions of temperature, humidity and light for varying periods of time before they were checked for taste, odor and crispness.* It was found that with a number of the anti-oxidants, taste and crispness could be maintained, but that an objectionable odor would develop over a period of time, especially in the case of samples packaged in the sealed cellophane bags. To absorb this odor, a small amount of activated carbon was placed in one of the cellophane test bags before sealing. When this bag was opened a week later it was found that the contents of the sample were superior in both taste and odor to samples packaged without the activated carbon. Additional tests made following this experiment indicated that the activated carbon by itself was just as effective in preserving flavor and freshness as when used with anti-oxidant treated oils.

Although these tests offered a solution to Gordon Food's problem if only sealed cellophane bags were used, there remained the problem of combating moisture when the chips were packaged in stapled waxed-paper bags.

Since the use of silica gel as a desiccant is well established, it was decided to add a few grains in unsealed waxed-paper test packages and check the results. This series of tests and subsequent experiments proved that the silica gel combined with activated carbon resulted in preserving good flavor, odor and crispness in unsealed waxed-paper bags for periods of a week or more under the severe conditions imposed on the packages in the test chamber. From all the tests, the general conclusion was that after 10 days in the chamber—the equivalent to 20 days on the store shelf in normal hot weather—potato chips sealed in cellophane bags with both the drying and absorbing agents included were in excellent condition and that those packed with the agents in unsealed waxed-paper bags were acceptable, while control samples in both kinds of bags minus the agents were unacceptable. Packets of both cellophane and glassine were found perfectly satisfactory from a performance standpoint and both types will stand indefinite storage periods without becoming brittle, although glassine had a slight advantage pricewise.

The potato-chip bags are of double

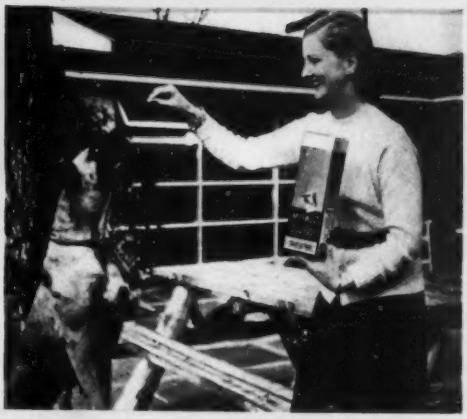
(This article continued on page 410)

* A detailed report written by Robert N. Miller and William E. Robertson on the test procedure and results appeared in *Food Engineering*, July, 1951, pp. 38, 39 and 147.

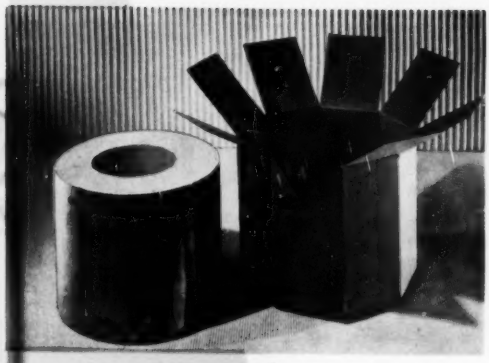
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POND'S
Hankies
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2



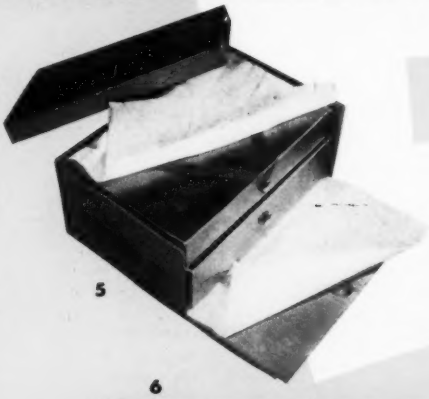
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3


Burry's
PURE CHOCOLATE
MOONLIGHT
MALLOWS
Burry's
MOONLIGHT
MALLOWS
Burry's
PURE CHOCOLATE
MOONLIGHT
MALLOWS

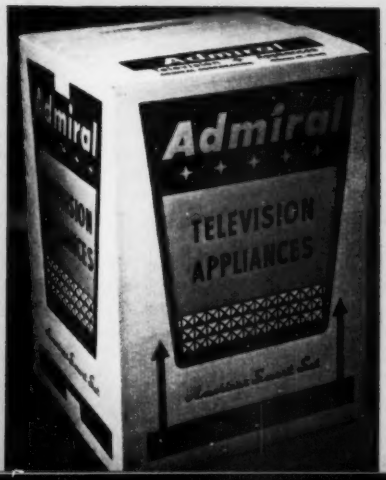
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7


Russell Stover
CANDIES

6


Admiral
Admiral
TELEVISION
APPLIANCES

8


Sherry

PACKAGING PAGEANT

1 The 4½ by 3 by 2½ in. size of the paperboard folding carton for Pond's Extract Co.'s new Pond's Violet-Ray Pure Tissue Hankies is designed for convenient desk or drawer use. Design and color of the carton, which holds 50 two-ply tissues, is similar to that used for the company's regular-sized tissues. Design, Joseph B. Platt, New York.

2 Increases in sales of Midwest Meat Packers Co.'s dog food since the introduction of this new bag package indicate that it is doing a job in stimulating impulse buying. Skillful use of type, illustration and three-color over-all printing dramatizes the product at point of sale. Bag, Union Bag & Paper Corp., New York.

3 New printed cellophane wrappers for Burry's Pure Chocolate Moonlight Mallows carry two appetite-appeal illustrations designed to stimulate impulse buying. The gravure-printed illustrations, reproduced from actual color photographs, extend over the edges of the carton so they can be seen from all four sides. Wraps, Shellmar Products Corp., Mt. Vernon, Ohio.

4 This one-piece octagonal box made of corrugated board is engineered for maximum strength and to afford protection for the Van Packer Flue, a product used in heating installations. Four overlapping thicknesses at the center of each end give added protection at greatest points of stress. Box, The Hinde & Dauch Paper Co., Sandusky, Ohio.

5 The decorative paper-backed, gold-colored foil on Max Factor's "Treasure Chest of Make-Up" cosmetics gift-set box is protected during shipment by wrapping it with a sheet of creped cellulose wadding and then placing it in a corrugated shipping container. Set box, W. C. Ritchie Co., Chicago. "Kimpak" wadding, Kimberly-Clark Corp., Neenah, Wis. Shipper, Stone Container Corp., Chicago.

6 Admiral Corp.'s 1952 television sets are packaged in this newly designed corrugated shipping box featuring a light blue basket-weave background with printing in gold and blue—Admiral's traditional colors. Container, Stone Container Corp., Chicago.

7 The new red acetate film was selected by Russell Stover Candies as an appropriate material for overwrapping its heart-shaped Valentine candy box because of its dimensional stability and its resistance to fading and changes in humidity. Acetate, Celanese Corp. of America, New York.

8 This new combination handle and pouring spout of plastic creates a unique package for Old Mister Boston Wines marketed by Berke Brothers Distilleries, Inc. This new "Egyptian Vase" decanter is one of a number of distinctive container designs for this brand. Decanter and metal closure, Armstrong Cork Co., Lancaster, Pa. Molded plastic handle and spout, Morning Star Corp., Cambridge, Mass. Label, Daniels Printing Co., Boston.

9 All necessary label information, including instructions for use, appear on the lithographed metal closure for Clark's Minipop—popcorn in vegetable oil ready for popping. This eliminates the need for a label on the tumbler and permits maximum product display. Tumbler and closure, Anchor Hocking Glass Corp., Lancaster, Ohio.

10 Artone Color Corp. has adopted a cap design that matches the label design for its Artone Water Color package. The 51-mm. lithographed metal cap is blue and gold; the label, blue and white. Cap, Crown Cork & Seal Co. Baltimore. Jar, Hazel-Atlas Glass Co., Wheeling, W. Va.

11 Johnson & Johnson makes an all-out appeal to mothers with an unbreakable, spillproof squeeze bottle for Johnson's Baby Lotion. Reported to have been selected from designs submitted by the country's leading package designers, the dispenser-type, polyethylene bottle is a graceful white column decorated with blue-stemmed pink flowers. Bottle and dispenser plug, Elmer E. Mills Corp., Chicago. Cap, Braun-Hobar Corp., Milwaukee. Decorating, Anigraphic Process, Inc., New York.





CARNIVAL SPIRIT in latest Worthmore packages is achieved by association of clown and curtain device with the trade name. Design, color and shading variations help identify type of candy. Bright colors provide vibrant mass display.



PREVIOUS DESIGNS in Worthmore line lacked the boldness required for super-service display. The 1949 redesign was an improvement, but was too dainty to achieve mass effect.

Super-selling candy

A & P's LATEST BOX DESIGNS DEMONSTRATE WHAT IS NEEDED TO EXPLOIT THE CANDY POTENTIAL IN TODAY'S SELF-SERVICE STORE

Candy sales in supermarkets constitute undoubtedly the largest merchandising development in the candy field in the past 25 years. Part of the price demanded for a share of this growing market is packaging leadership designed to keep abreast of rapidly changing trends.

Packaged candies in self-service stores increasingly have been pushed out of a luxury class into a staple-item category. One reason for this is the success of packaging in catching the impulse purchase—convincing shoppers it would be a good idea to take some candy home. Since most consumers shop from either a written or mental shopping list including potatoes, coffee, meat, bread, milk, etc., but not candy, the candy package must, to a degree, "shout" its appeal to be taken home to the family.

In recognition of the demand for a stronger, more assertive candy package, the Great Atlantic & Pacific Tea Co. has recently redesigned the packages in its "Worthmore" and "Warwick" boxed candy lines as part of its continuing package study and redesign program. The latest changes reflect the rapidly changing character of current trends in supermarket candy merchandising.

For example, A & P's new Worthmore carnival design, adopted in the Fall of 1950, is an attempt to achieve: (1) immediate and easy product identity, (2) trademark attention and memory value, (3) a vi-

brant, active display and (4) economy in production.

In the new design, product identity is strengthened by allowing the product name to dominate the display panel of the folding window cartons. Trademark attention and brightness are achieved by employing a clown and curtain device. To keep eye interest high, three adaptations of the clown and curtain design and four decoration changes are used, thus providing variety. The clown and curtain adaptations are achieved with the following printed changes: (1) a solid over-all distribution of color, (2) a solid curtain only and (3) a shaded curtain.

Decor changes of balloons, pinwheels, moons and stars lend a festive divergence to the regular line. Variations of the carnival theme are also used to spark up the specialty items, such as bridge mix.

As for package economy, a broad coverage of color results is attained with five basic colors. Each box for the items in the Worthmore line is printed in two colors. In close cooperation with the carton supplier, combination runs were devised. The five colors used—cerise, red, yellow, dark blue and light blue—give a lively color presentation of candy packages in mass showing. Yellow sparks up most of the packages, the combinations being cerise and yellow, dark blue and yellow, red and yellow, light blue and yellow, dark blue and cerise.

The emphasis on color in the new Worthmore design is based on one of the important trends in self-service candy merchandising. When A & P candy departments were first set up, competitive candy packages in the stores had not taken on the brighter, more blatant aspect some of them now possess. In fact it was found that some of the previous designs in the Worthmore line, although having a decidedly clean "candy-store" appearance, were in effect only establishing a pleasant background for brighter competitive packages. For example, a new design had been adopted in 1949. This design heightened quality appearance, employed three colors effectively and did a better job than did its predecessor in trademarking and identifying the various candies.

Basically, the 1949 design was of Pennsylvania Dutch origin and was essentially feminine. The design employed selected three-color combinations suited to an appetizing presentation of candy. This design, though it was in step with the times, did not go far enough. It was quite appropriate for a candy store where a planned consumer purchase of candy was desired and expected, but it was not of a nature to "shout" at the passing shopper and command impulse buying in the face of more brightly packaged competition.

Redesigned Warwick packages

The new Warwick design used on set-up boxes, which also hit A & P shelves last year, is a far cry from its predecessors. A previous design, for example, was distinguished only by a dark brown oval panel, which, while it spotted the brand and product name, was monotonously drab against a linen-effect background. Packages for the several types of chocolates put up were identical and all looked more like boxes of stationery than candy.

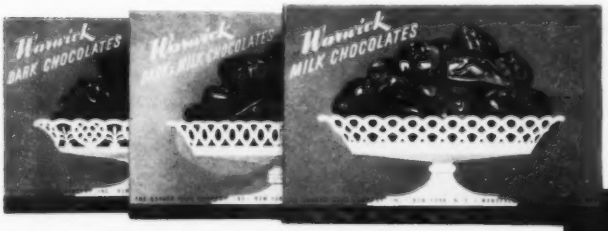
A later design was cleaner in appearance and more feminine. Color differences established candy assortments and a candy-store, candy-like mass display could be achieved. As in the case of the Worthmore Pennsylvania Dutch package, the redesigned Warwick package was fine for candy-store merchandising where a planned purchase walks in the door, but it was not aimed at an impulse purchase of candy in the A & P.

A & P in planning its latest Warwick package reasoned that if canned and frozen fruits, vegetables and similar items now depend on appetite appeal, it naturally follows that candy merchandising can take a lesson from this successful book.

The new Warwick package, accordingly, employs an eye-level showing of full-color chocolates in an attempt to arrest attention through appetite appeal and brightness. The product is well defined through the use of background color and candy illustration, and the package itself displays vibrantly. In effect, the eye-level handling of the candy in a dainty milk-glass dish distinctly trademarks the product.

A green background is employed for dark chocolate; blue for mixed dark and milk chocolates, and salmon red for milk chocolates. Subtle design differences in the milk-glass dish also help achieve variation in the appearance of the packages.

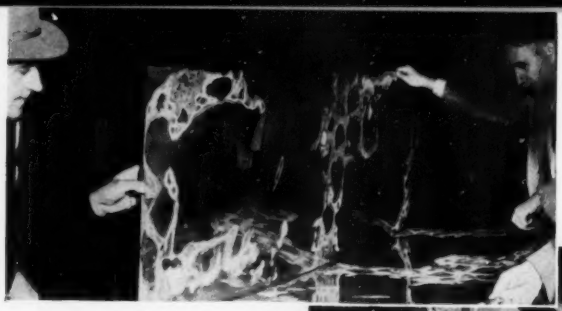
CREDITS: *Design, Robert G. Neubauer, Inc., Bridgeport, Conn. Worthmore cartons, Robert Gair Co., Inc., New York, and Container Corp. of America, Chicago. Warwick box wraps, R. R. Heywood Co., New York. Warwick set-up boxes, Gerbereux, Dufft & Kinder, Brooklyn, N. Y.*



APPETITE APPEAL as well as strong display are keynotes of the new Warwick set-up boxes. Rich and realistic color treatment of the heaped chocolates in a milk glass bowl immediately identifies type of candy and coating. Variations in the background colors and slight differences in bowl design also help to distinguish varieties.

EARLIER WARWICK boxes did not stir impulse purchases. Plain box in the background didn't even look like "candy." The later design had neat appearance, but lacked illustration.





PHOTOS COURTESY KAISER ALUMINUM & CHEMICAL CORP.

THE PROBLEM. Water staining formed on flat sheets of quality aluminum when sheets were held for long in humid storage.



THE SOLUTION. Protected by impregnated slip-sheets, the aluminum sheet emerges, mirror-like, after the "sweat box" test.

Inhibitive slip-sheets

CHEMICALLY IMPREGNATED TISSUES SOLVE PROBLEM OF WATER STAINS IN SHIPMENT OF ALUMINUM FLAT SHEET PRODUCTS

One of the basic functions of packaging is the elimination of contact hazards by separating products from each other to avoid damage. The most frequent hazards of this type require cushioning to prevent shock damage, packing or slip-sheeting to prevent adhesion of sticky surfaces, or special wrapping to prevent scuffing or corrosion. A rarer instance of a contact hazard—one that has only recently been solved—is the problem of preventing water-condensation stains on aluminum flat-sheet products while they are being stored.

The method of solving the problem may be suggestive of a line of attack on similar hazards encountered in handling and storing other products.

The new method, employing chromate-impregnated interleaving paper, was developed by the Division of Metallurgical Research of Kaiser Aluminum & Chemical Corp. Planned specifically for use by the consumers of aircraft-quality aluminum sheet materials, the impregnated tissues have been found to eliminate or greatly reduce the surface discoloration which occasionally appears on aluminum when it is stored in a humid warehouse for a long period of time. It may be that use of chromate-impregnated tissues will also prove successful in combating water stains in other nested forms and flat-sheet materials. Investigations along these lines are already being planned.

Water stains, which may be found on most metals and many non-metals when they have been stored in sheet stacks or nested forms, do not impair the mechanical properties of aluminum, but they mar the otherwise pleasing appearance of the metal. Although the exact nature of formation is not known, Kaiser research investigators have found that certain conditions are necessary for water staining to begin. These conditions include a limited supply of air, a small amount of moisture and the restriction caused by the weight of the stacked metal itself. Consequently, these stains do not appear in normal service use.

Water stains, which vary greatly in color, assume mirror symmetry on the

contacting surfaces of stacked sheets, thus spoiling the appearance of two sheets of material each time they develop. They have long presented a problem to aircraft fabricators who frequently store sheet metal in large quantities and for extended periods. Studies have revealed that the moisture which causes water staining comes from either of two sources, accidental heavy wetting during handling, or as a dew-like condensate from the warehouse atmosphere.

The condensate is the most insidious form, since its presence is not generally suspected. With changes in temperature in the warehouse, moisture will condense on the surfaces of the cool metal from the warm air within the building. As the moisture accumulates on the edges of the sheets, it is drawn into the minute crevices between the stacked sheets by capillary action. It is in these crevices that the limited supply of air and the weight of the stacked metal combine with the moisture to create the conditions necessary for water staining.

Various methods have been tried to alleviate this problem. One of the more successful is the addition of certain petroleum-base inhibitors to the light engine oils with which some sheet products are coated to protect them from moisture. However, instead of being oiled, the clad aircraft alloys are interleaved with tissue paper. The inhibitive tissue was developed for aircraft-quality materials.

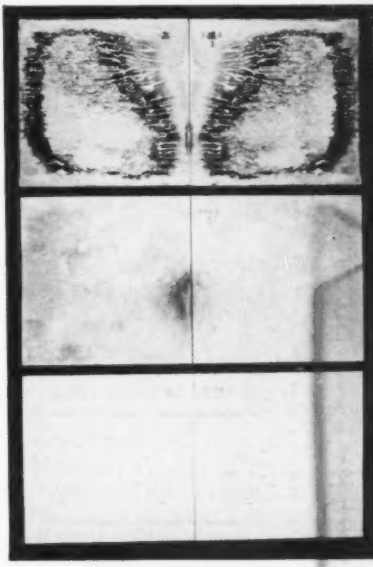
Studies were begun several years ago at the Division of Metallurgical Research of Kaiser Aluminum to find an inhibitor compound with which interleaving tissue could be impregnated to prevent water stain. Test packs of at least five aluminum sheet panels were interleaved with tissues having varying amounts of different inhibitors. During assembly, each contacting surface was sprayed with distilled water to provide sufficient moisture to promote accelerated staining. The packs were bound with aluminum wire and wedged with a cork to simulate the weight pressure that exists in warehoused stacks. The packs were then stored in a highly humid atmosphere for 30 days, then were opened and examined.

Repeated tests showed that sodium chromate was the compound that gave the greatest protection. Tests were expanded to include several alloys. Then they were narrowed to determine which concentrations of sodium chromate rendered the best results. When the Kaiser research men found that 1.5% to 3.0% of sodium chromate, based on the dry weight of the treated tissues, was the optimum range, they decided to test the tissues on a larger scale. Since the true value of the tissues could be decided only by testing them in stacks of commercial-sized sheet materials, the research corrosion experts called upon the shipping department of the Kaiser Trentwood rolling mill.

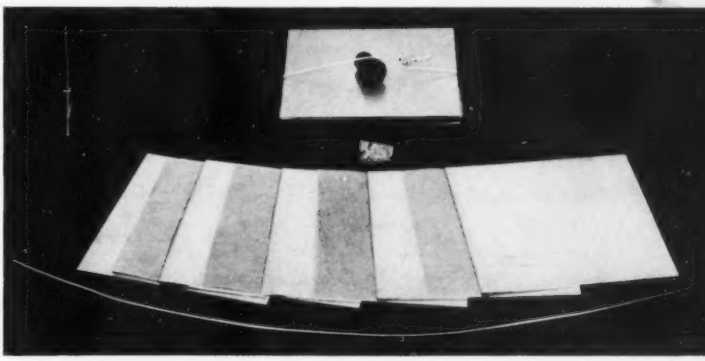
A paper manufacturer submitted sample production lots of tissues which had been impregnated with two different sodium chromate concentrations. Stacks of flat aluminum sheet were assembled using these tissues, unimpregnated tissues and no tissues at all between several sheets of metal. These commercial-sized stacks were then stored in a refrigerator at 32 deg. F for four days, after which they were immediately transferred to a "sweat box" maintained at 95 deg. F and nearly 100% relative humidity where they were kept for another four days before being allowed to dry at room temperature for 20 days. This specially designed test created extremes in water-stain conditions far beyond those that would be encountered in warehouses.

Examination of these sheet stacks showed that tissues which were properly impregnated successfully prevented water staining while uninterleaved aluminum sheets developed the same type of stains which had been familiar to the corrosion investigators in the laboratory.

Several paper producers have established production techniques for manufacturing the impregnated tissues which should shortly be available to the entire aluminum industry. The entire development of these tissues is protected by the patent rights of Kaiser Aluminum & Chemical Corp.



TEST RESULTS. At the top are two aluminum panels that were not interleaved. Center panels were interleaved with untreated tissue. Bottom panels, which alone retained an unmarred finish, were slip-sheeted with sodium-chromate-impregnated tissue.



CHROMATE-IMPREGNATED TISSUES were developed by the Kaiser Aluminum & Chemical Corp.'s researchers. Here the impregnated tissues are used to interleave panels of aluminum for accelerated storage tests.

Self service:
who says it's not for you?



Maybe you think your product is unsuited to self-service packaging.

Maybe it's hard to package. Difficult to display. Maybe it's vulnerable to dust, or soilage or rough handling.

But—maybe you've never tried PLIOFILM.

This rugged, clear, moistureproof film—*made only by Goodyear*—has everything your product needs to be a star seller on self-service counters.

PLIOFILM is so strong and tough, it's practically immune to splitting or ripping. It has dimensional stability—doesn't pucker or wrinkle. It eliminates soilage, drastically reduces returns and rewraps. Its transparency lends gleaming sales appeal to any package, and the velvety touch of PLIOFILM accentuates the quality of fine textiles. Its yield is greater than conventional films, making it far more economical to use.

Result: PLIOFILM has scored a resounding success as a self-service packaging material, not only for foods, but for aprons, sweaters, sheets, shirts, towels—and a wide variety of hard-to-package, hard-to-protect products that had never been sold—or seen—on supermarket counters.

PLIOFILM prints clearly in multicolors, handles easily in packaging machines. Why not see what the Goodyear packaging engineer can do about tailoring a PLIOFILM package to your product. Write:

Goodyear, PLIOFILM Dept.,
Akron 16, Ohio.

Don't miss the PLIOFILM booth at the Packaging Show, Atlantic City, April 1 to 4.

Good things are better

We think you'll like "THE GREATEST STORY EVER TOLD"—Every Sunday—ABC Network



in Pliofilm

GOODYEAR
PACKAGING
FILM

3-way protection against air, moisture, liquids

Pliofilm, a rubber hydrochloride—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

CONFERENCE PROGRAM

TUESDAY MORNING

10:00 Conference opening by LAWRENCE A. APPLEY, *President, American Managment Assn.*

10:15 What's Ahead for Packaging—IRWIN D. WOLF, *Vice President, Kaufmann Department Stores, Inc., Pittsburgh.*

11:15 Washington Looks at the Materials Picture—MANLY FLEISCHMANN, *Administrator, Defense Production Administration, Washington.*

TUESDAY AFTERNOON (Concurrent)

MERCHANDISING ASPECTS OF PACKAGING

2:00 The Trend to Packaging for Self Service—HOWARD F. LOCHRIE, *Birds Eye Division, General Foods Corp., New York.*

2:45 Pre-Testing Package Design for Consumer Acceptance—ALBERT TWELTRIDGE, *Scott Paper Co., Chester, Pa.*

3:30 The Retailer Evaluates Your Package—(*Speaker to be announced*)

TUESDAY AFTERNOON (Concurrent)

IMPROVED PRODUCTION METHODS

2:00 Setting Efficient Standards on Packaging Machinery—FRED HERNDON *and* VALENTINE BREMER, *C. F. Mueller Co., Jersey City, N.J.*

2:45 Maintaining Quality Output on the Production Line—C. L. RUMBERGER, *H. J. Heinz Co., Pittsburgh.*

3:30 New Developments in Package Check-Weighing Equipment—ROGER L. MERRILL, *Battelle Memorial Institute, Columbus, Ohio.*

WEDNESDAY MORNING

REDUCING PACKAGING COSTS: THREE COMPANY PROGRAMS

9:30 (*To be announced*)

10:15 Cost Savings Through Package Standardization—J. F. APSEY, JR., *Black & Decker Mfg. Co., Towson, Md.*

11:00 Getting Maximum Effectiveness from Packaging Machinery—EDWARD HAMM, *Sharp & Dohme, Inc., Philadelphia.*

WEDNESDAY AFTERNOON

THE GENERAL MOTORS PACKAGING PROGRAM—A CASE STUDY

2:00 Introductory Remarks—M. E. ST. AUBIN, *Service Section, Detroit.* Background & Highlights of General Motors Program—RALPH A. O'REILLY, JR., *Service Section, Detroit.* Automatic Package Engineering Procedure—D. S. MILLMAN, *Packaging and Research, Flint, Mich.* Pioneering in Corrosion Prevention—R. C. LAMBRECHT, *Electro-Motive Division, La Grange, Ill.* General Motors Contributions to Military Packaging—E. H. VAN WAGNEN, *General Motors Overseas Operations, Detroit.* Semi-Automatic Packaging for Low Volume Operations—J. S. SAYLOR, *Buick Motor Division, Flint, Mich.* Developing a Machine for a Specific Job—J. W. PETERS, *Delco-Remy Division, Anderson, Ind.* Utilization of Materials for Mass Production Handling—R. W. CHALMERS, *Chevrolet Motor Division, Detroit.*

THURSDAY MORNING (Concurrent)

COST DATA AND PACKAGE HANDLING PRACTICES

9:30 Improvements in Car-Loading Techniques—L. F. DELVENTHAL, JR., *The Western Pacific Railroad Co., San Francisco.*

10:15 Material Handling & The Use of the Pallet as a Package—HARLAND R. BLACK, *National Biscuit Co., New York.*

11:00 A Practical Approach to Determining Packaging Costs—(*Speaker to be announced*)

THURSDAY MORNING (Concurrent)

BROADENING USES OF MULTIWALL PAPER SHIPPING SACKS (*A Panel Discussion*)

9:30 Cement—L. O. ROBINSON, *Universal Atlas Cement Co., New York.*
Chemicals—RICHARD W. LAHEY, *American Cyanamid Co., New York.*
Feeds—E. F. DICKEY, *Sales and Advertising, Honeggers, Inc., Fairbury, Ill.*

Your *Modern* packagi

to

The 21st A
NATIONAL PACKAGIN
and CONFER

ATLANTIC CITY AUDITORIUM

Conference Hours:

Tuesday, April 1 ..... 10 a.m. to noon
2 p.m. to 4:30

Wednesday, April 2 .... 9:30 a.m. to noon
2 p.m. to 4:30

Thursday, April 3 ..... 9:30 a.m. to noon

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AGING EXPOSITION
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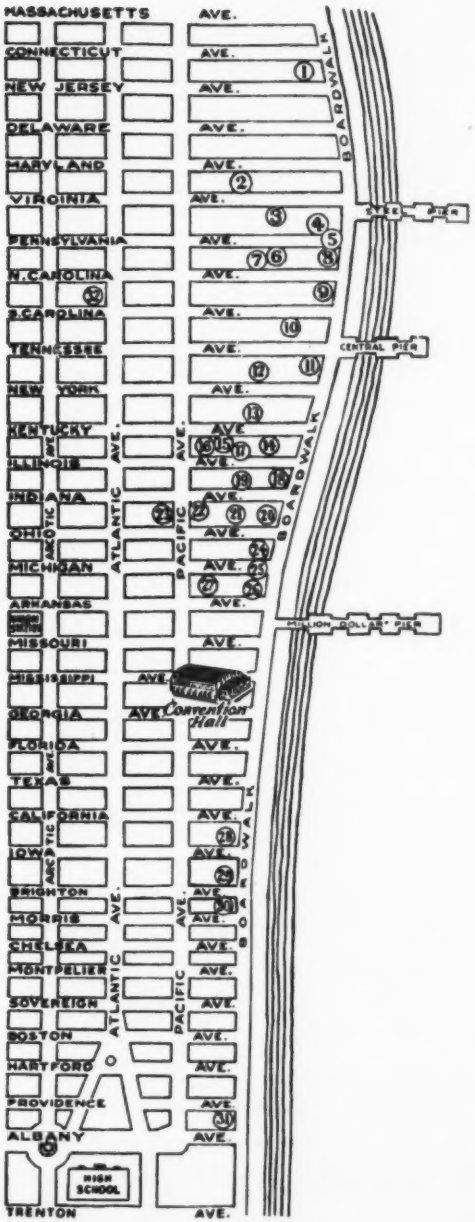
ORIUM, APRIL 1-4, 1952

Exposition Hours:

Tuesday, April 1 ..... Noon to 6 p.m.
Wednesday, April 2 ..... Noon to 10 p.m.
Thursday, April 3 ..... Noon to 6 p.m.
Friday, April 4 ..... 10 a.m. to 3 p.m.

Atlantic City

Hotel district and Convention Hall

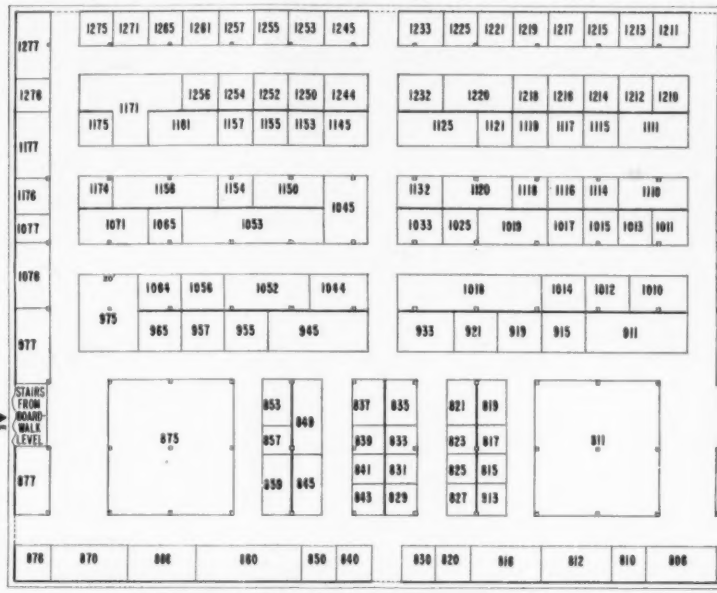


INDEX TO MAP

29—Ambassador
1—Breakers
19—Brighton
8-9—Chalfonte-Haddon Hall
30—Chelsea
20—Claridge
25—Dennis
24—Marlborough-Blenheim
11—Mayflower
31—President
28—Ritz Carlton
4—Seaside
26—Shelburne
5—Strand
18—Graymore
27—Arlington
6—Colton Manor
22—Crillon
23—Eastbourne
12—Flanders
2—Franklin Inn
15—Jefferson
16—Kentucky
7—Lafayette
17—Madison
13—Monticello
3—Morton
32—Penn-Atlantic
21—Runnymede
10—Senator
14—Sterling

Exposition floor plan and alph

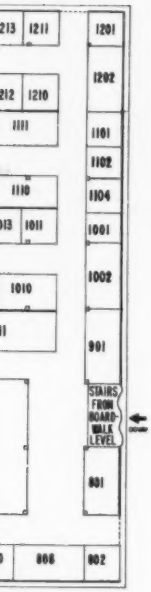
Exhibitor	Booth No.
A-B-C Packaging Machine Corp.	638-640
Acme Steel Co.	302
Addison-Semmes Corp.	1111-1113
Alemite Div., Stewart Warner Corp.	1233
Algene Marking Equipment Co.	138-140
Allegheny Steel Band Co.	1155
Aluminum Co. of America	345
American Can Co.	312
American Coating Mills Div., Owens-Illinois Glass Co.	775
American Excelsior Corp.	901
American Instrument Co.	1116
American Marking Corp.	1110-1112
American Partition Corp.	301
American Type Founders	763-767
Amsco Packaging Machinery, Inc.	325-333
Arabol Mfg. Co.	406
Arenco Machine Co., Inc.	237
Arkell & Smiths	1177-1178
Arvey Corp.	124
Askania Regulator Co.	849-851
Associated Cooperage Industries of America, Inc.	207
Atlantic Gummed Paper Corp.	1071-1075
Atlas Plywood Corp.	1202-1204
Automatic Web Control Mfg. Co.	256-258
Avery Adhesive Label Corp.	127-129
Bakelite Co., Div. Union Carbide & Carbon Corp.	412
Bareco Oil Co:	816-818
Barrett-Cravens Co.	639
Bartelt Engineering Co.	271
Beck, Charles, Machine Corp.	621
Bemis Bro. Bag Co.	350
Bensing Bros. & Deeney	260-264
Betner, Benj. C., Co.	633
Better Packages, Inc.	109-113
Biner-Ellison Machinery Co.	1244
Boler Petroleum Co., Inc.	816-818
Bolta Co.	965
Bonnell Publications, Inc.	738
Borden Co., Chemical Div.	1013
Brown Bag Filling Machine Co., Inc.	112
Burt, F. N., Co., Inc.	635
Cameron Machine Co.	877
Cargo Packers	1175
Celanese Corp. of America	344
Celon Co.	720
Celotex Corp.	1215
Celluplastic Corp.	835
Central States Paper & Bag Co., Inc.	205
Chaffee, Ralph, & Co.	105
Chain Belt Co. of Milwaukee	945-953
Champlain Co., Inc.	632-636
Chase Bag Co.	760-762
Chase Equipment Corp	744-746
Chaspec Mfg. Co.	461
Chester Packaging Products Corp.	850
Chippewa Paper Products Co., Inc.	740-742
Chisholm-Ryder Co. of Pennsylvania	133
Clark-Aiken Co.	1156-1170
Clark Equipment Co., Industrial Truck Division	811
Cleveland Container Co.	540
Clybourn Machine Corp.	845-847
Colton, Arthur, Co., Div. Snyder Tool & Engineering Co.	801
Columbia Paper Products Co.	1119
Consolidated Packaging Machinery Corp.	226
Container Corp. of America	450-551
Container Equipment Corp.	137-141
Continental Can Co., Inc.	360-366
Counsel Machine Co., Inc.	1045-1144
Crescent Ink & Color Co.	955
Crown Can Co.	675
Crown Cork & Seal Co.	675
Crown Cork Specialty Corp.	675
Crystal Tube Corp.	232
Culligan Zeolite Co.	1232
Dependable Compressor & Machine Co.	1174
Derby Sealers, Inc.	759-761
Diagraph-Bradley Industries, Inc.	121
Diaphane Corp.	711
Dilts Machine Works, Div. Black-Clawson Co., Inc.	820
Dobeckmun Co.	625
Doughboy Industries, Inc.	645
Dow Chemical Co.	531
Dumatic Industries	728
Du Pont, E. I., de Nemours & Co., Inc., Polychemical Dept.	126-136
Du Pont, E. I., de Nemours & Co., Inc., Film Dept.	425-433
Du Pont, E. I., de Nemours & Co., Inc., Orchem Dept.	221
Durethene Corp.	1015
Eastern Corrugated Container Corp.	1161-1165
Eastern Duo-Fast Corp.	1114
Eastman Kodak Co.	470
Economic Machinery Co.	705-706
Electronic Machine Parts, Inc.	774
Elgin Mfg. Co.	558
Envelope Mfrs. Assn. of America	201
Exact Weight Scale Co.	750
Facile Corp.	1076-1078
Fancy Container Div., I. D. Co.	630
Felins Tying Machine Co.	145
Ferguson, J. L., Co.	211-215
Fibre Drum Mfrs. Assn.	131
Fischbein, Dave, Co.	757
Flexible Package Co.	1011
Food Engineering	536
Food Machinery & Chemical Corp., Canning Machinery Div.	532
Frazier & Son	325-333
Fulton Bag & Cotton Mills	1256
Gair, Robert, Co., Inc. 150,	251-257-259
Gaylord Container Corp.	373
General Box Co.	250
General Electric Co.	1133
Gering Products, Inc.	715
Gibraltar Corrugated Paper Co., Inc.	1014
Gilman Bros.	1210
Glassine & Greaseproof Mfrs. Assn.	160-168
Glo-Brite Products, Inc.	1157
Globe Heat-Seal, Inc.	525
Gloco Products Co.	857
Goodyear Tire & Rubber Co., Inc.	444
Gordon Cartons, Inc.	1017
Gottscho, Adolph, Inc.	657-659
Graphic Arts International	1171-1274
Gravure Cylinder Corp.	1217
Graymills Corp.	825
Greenwood Packaging Supply Co.	1120-1124
Gump, B. F., Co.	812-814
Gutmann, Ferdinand, & Co.	1056
Hampton Mfg. Co.	1101
Hankins Container Co.	662-666
Hayssen Mfg. Co.	372
Hazel-Atlas Glass Co.	473
Heat Seal-It Machines	525
Heinrich, H. H., Co.	475
Hewson, John, Co.	1102

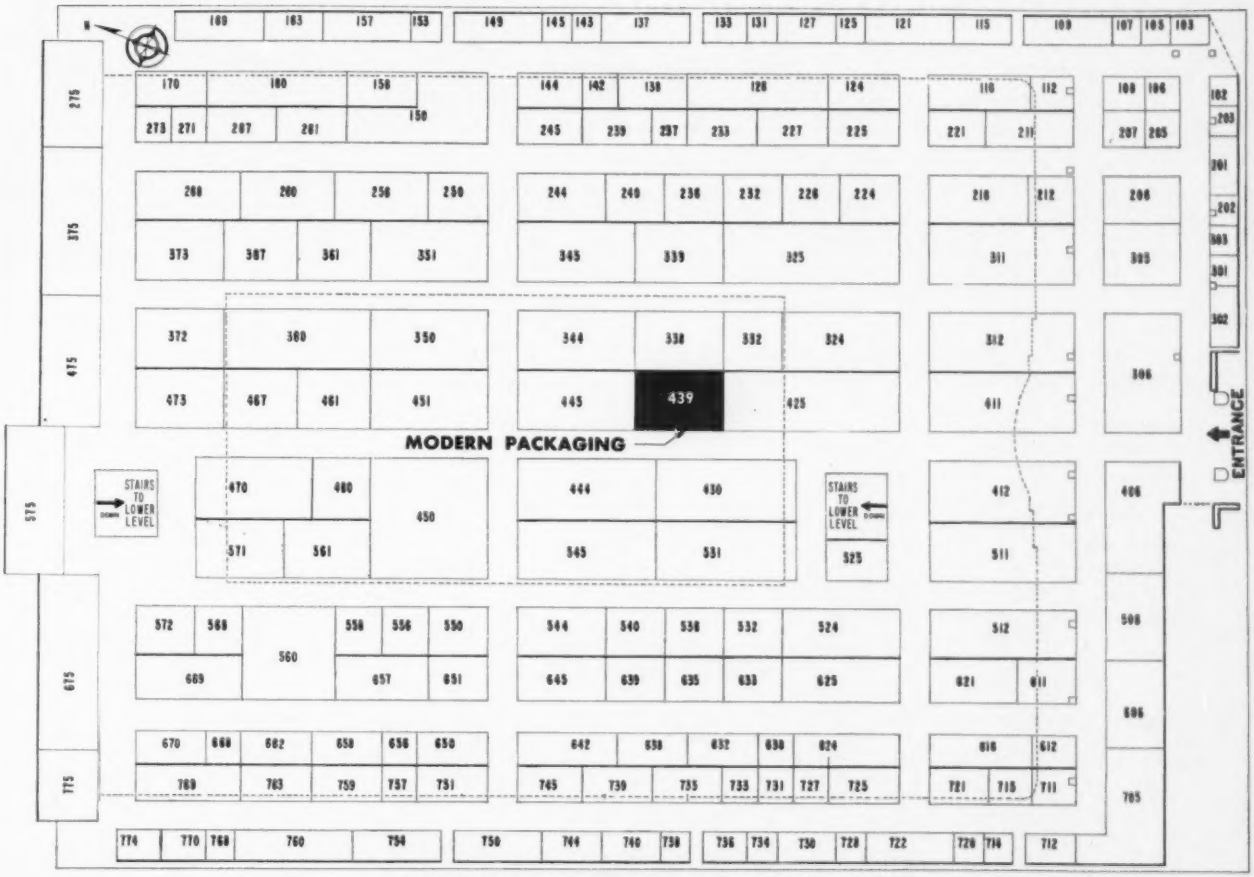


LOWER LEVEL (Booth Nos. 801 to 1277)

Exhibitor	Booth No.
High Production Machine Co., Inc.	206
Hilker Products Corp.	977
Hinde & Dauch Paper Co.	467
Hofmann, Alfred, & Co.	1171-1274
Hol-Bag, Inc.	806
Holes, Floyd A., Co.	1052-1054
Horix Mfg. Co.	227-231
Hudson Pulp & Paper Corp.	819
Hudson-Sharp Machine Co.	831-833
Ideal Stencil Machine Co.	921
I. D. Co., Fancy Metal Containers	630
Impact-O-Graph Corp.	1077
Industrial Equipment & Repair Co.	815
Industrial Tape Corp.	606
Inland Steel Container Co.	612
Intaglia Service	813
International Paper Box Machine Co.	911-913
International Printing Ink, Div. Interchemical Corp.	324
Island Equipment Corp.	144
Ivers-Lee Co.	731
Jiffy Mfg. Co.	245
Jones, R. A., & Co., Inc.	375
Kalamazoo Vegetable Parchment Co.	572
Karstrom, Paul L., Co.	727
Kiefer, Karl, Machine Co.	739-741
Kimberly-Clark Corp.	225
Kimble Glass Div., Owens-Illinois Glass Co.	224
Kingsbury & Davis Machine Co.	853
Kliklok Corp.	1001-1104
Krause, Frederick A., Assoc., Inc.	1275
Lakso Co., Inc.	736
Lamson Corp.	142, M.R.B.
Lassiter Corp.	751
Lederle Laboratories Div., American Cyanamid Co.	915
Leeds Sales Co., Specialty Package Div.	670-672
Link, L., & Co., Inc.	153
Ludlow Mfg. & Sales Co.	1153
Lynch Corp., Packaging Machine Div.	560-665
MRM Co., Inc.	367
Machine O'Matic, Inc.	827
Machinery Mfg. Co., Inc.	512
Manhattan Paste & Glue Co., Inc.	651
Marathon Corp.	561
Mark'Andy, Inc.	768
Mark Specialty Co.	203
Markem Machine Co.	170-172
Marsh Stencil Machine Co.	712
McLaurin-Jones Co.	1025
Mehl Mfg. Co.	1132
Melrose Packaging	1176
Meyer, Geo. J., Mfg. Co.	705-706
Mid-States Gummed Paper Co.	261-263
Miller Wrapping & Sealing Machine Co.	325-333
Mills, Elmer E., Corp.	1145
Milprint, Inc.	430
Minnesota Mining & Mfg. Co.	571
MODERN PACKAGING	439
Monsanto Chemical Co.	511
Moore, Kenneth J., & Co.	115-117
Mosstype Corp.	267-269
Motorola, Inc.	829-843
Multistamp Co., Inc.	143
Mystik Adhesive Products	156-158
Nashua Gummed & Coated Paper Co.	616-620
Nasko Machinery Corp.	103
National Adhesives Div., National Starch Products, Inc.	445
National Bundle Tyer	
National Equipment C	
National Laboratories Corp.	
National Metal Edge	
National Wooden Box	
New Jersey Machine	
Niagara Filter Corp.	
Olin Cellophane Div., Paper Corp.	
Oliver Machinery Co.	
Owens-Corning Fiberg	
PNR Corp.	
Package Machinery Co	
Packaging Industries,	
Packaging Institute	
Packaging Parade	
Pack-Rite Machines, D Industries, Inc.	
Paisley Products, Inc.	
Pak-Rapid, Inc.	
Paramount Paper Prod	
Perry Metal Products	
Peters Machinery Co.	
Pfaudler Co., The	
Pfingsten Engineering	
Plastics World	
Plax Corp., Div. Emh	
Pneumatic Scale Corp	
Polyken Industrial Ta	
Popper & Sons, Inc.	
Potdevin Machine Co	
Printing Machinery C	
Protect-O-Pak Sales &	
Queen City Tulatex	
Radio Corp. of Ameri Victor Div.	
Rainbow Ribbons & F	

alphabetical guide to booth numbers



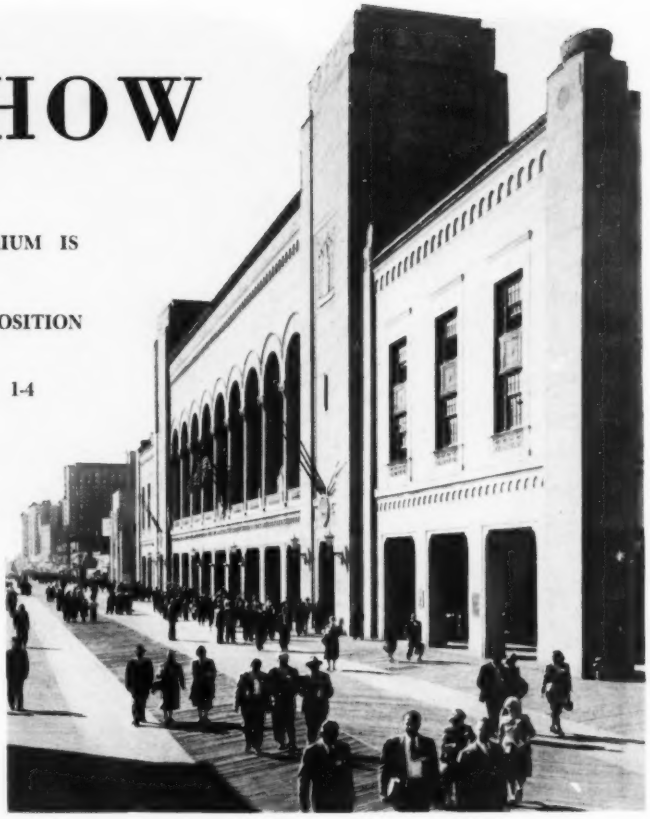


BOARDWALK LEVEL (Booth Nos. 102 to 775)

Exhibitor	*Booth No.*
Bundle Tyer Co.	1115
Equipment Co.	1064
Laboratories & Mfg.	1276
Metal Edge Box Co.	332
Wooden Box Assn.	650
y Machine Corp.	512
lter Corp.	1277-1278
phane Div., Ecusta orp.	722
chinery Co.	268-272
rning Fiberglas Corp.	1044
	933
lachinery Co.	311
Industries, Ltd.	1018-1032
Institute	802
Parade	550
Machines, Div. Techtmann es, Inc.	106
ducts, Inc.	233-235
, Inc.	754-758
Paper Products Co., Inc.	840
l Products Co.	1150-1152
chinery Co.	642, 644
Co., The	107
Engineering Co.	1154
orld	202-203, 303
, Div. Emhart Mfg. Co.	545
Scale Corp., Ltd.	544
ndustrial Tape	1145
Sons, Inc.	837-841
Machine Co.	460
lachinery Co.	1065
Pak Sales & Engr. Co.	1125
y Tulatex Corp.	1121
p. of America, RCA Div.	216-220
Ribbons & Fabrics Corp.	1271
Rathborne, Hair & Ridgeway Box Co.	236
Redington, F. B., Co.	305
Reeves Pulley Co., Inc.	957
Resina Automatic Machinery Co., Inc.	1250
Reynolds Metals Co.	451
Rheem Mfg. Co.	866-868
Richards, J. A., Co.	108
Riegel Paper Corp.	411
Ross & Roberts Sales Co., Inc.	919
Rossotti Lithograph Corp.	668
Roto Bag Machine Corp.	669-673
Sanford, William B., Inc.	556
Sav-Way Sara Seal, Inc.	1033
Scandia Mfg. Co.	506
Schroeder Machines Corp.	725
Seal-Spout Corp.	212
Sefton Fibre Can Co.	450-551
Shaw-Randall Co., Inc.	244
Shellmar Products Corp.	338
Shelton Mfg. Co., Inc.	157-161
Sherman Paper Products Corp.	361
Shipping Management, Inc.	102
Sill Industries	1214
Simplex Packaging Machinery, Inc.	325-333
Sinclair & Valentine Co.	1220
Smith, H. P., Paper Co.	163-167
Snyder, L. W.	1118
Societa Anonima, G. D.	1252
Speedry Products, Inc.	857
Sperry Corp., E. G. Staude Div.	169-173
Sponge Rubber Products Co.	1255
Standard Cap & Seal Corp.	1019-1211
Standard-Knapp, Div. Emhart Mfg.	545
Stanford Engineering Co.	769-773
Stein, Hall & Co., Inc.	149
Stokes & Smith Co.	524
Sun Chemical Corp.	240
Sutherland Paper Co.	575
Swift & Co., General Adhesive Products Dept.	721
Sylvania Div., American Viscose Corp.	306
Toffolon, Roger L.	817
Tompkins' Label Service	611
Transparent-Wrap Machine Corp.	745
Traver Corp.	116-120
Triangle Package Machinery Co.	624-626
Tri-State Plastic Molding Co., Inc.	1012
Twombly, C. E., Co.	734
Union Bag & Paper Corp.	351
Union Paste Co.	870
Union Special Machine Co.	125
Union Steel Products Co.	1216, 1218
United Can Co., Inc.	1221
United Packaging Co.	1212
United States Automatic Box Machinery Co., Inc.	339
U. S. Bottlers Machinery Co.	770
U. S. Engineering Co.	730-732
United States Envelope Co.,	1053-1061
United States Printing & Lithograph Co.	275
Upressit Products Corp.	1010
Vac-Tie-Fasteners, Inc.	876
Vanant Products, Inc.	1245
Varigraph Co., Inc.	821
Vertrod Corp.	766
Visking Corp.	975-1074
Vulcan Tin Can Co.	1213
Walton Laboratories, Inc.	860-864
Waxed Paper Institute, Inc.	735-737
Weber, H. G., & Co., Inc.	568
Weber Addressing Machine Co.	1117
Weigh Right Automatic Scale Co.	859-861
West Co., Inc.	830
Wheaton Glass Co.	810
Winne, Frank W., & Son, Inc.	658-660
Wolverine Paper Converting Machinery Corp.	103
Wood Conversion Co.	656
Wrap-Ade Machine Co., Inc.	273
Wrap-King Corp.	733
Wright Machinery Co.	239-241
Yale & Towne Mfg. Co.	875

21st SHOW

ATLANTIC CITY'S AUDITORIUM IS READY FOR BIGGEST EXPOSITION AND CONFERENCE, APRIL 1-4



Increased emphasis on materials handling as a function of packaging is the principal added feature of the 21st National Packaging Conference and Exposition, to be held in Atlantic City April 1 to 4.

Otherwise, the pattern of steady growth in size and importance of this annual spring event—now one of the world's largest industrial expositions—remains uninterrupted. As this issue went to press, the list of exposition exhibitors was close to 300, as against last year's record 264, and space requirements for the first time had pushed the show into the Lower Level of the Atlantic City Auditorium in addition to the entire area of the Boardwalk Level. Exhibit space will comprise 100,000 sq. ft., as against 83,000 last year.

Attendance is expected to surpass last year's 16,000, which set a new record for this event at Atlantic City, and may approach the all-time record of 20,000 set at Chicago's Navy Pier in 1950.

Hotels are geared to handle a crowd of the latter figure, but it is urged that reservations be sent as soon as possible to the Housing Bureau, A.M.A. National Packaging Exposition, 16 Central Pier, Atlantic City, stating first, second and third choices. There will be no through trains to Atlantic City from points other than New York and Philadelphia, the experiment of last year having been abandoned as impractical, but the Pennsylvania Railroad has promised extra trains to handle the traffic.

The extension of the Exposition area into the Lower Level of the auditorium, readily accessible by stairways from both ends of the main floor, permits the inclusion of exhibits of materials-handling equipment which previously have been barred because of floor-load limitations. At least two of the largest manufacturers in this field will have extensive exhibits on the Lower Level, demonstrating actual operations. In addition, in a specially constructed pavillion outside the Auditorium and directly accessible from it, there will be a continuous demonstration of new techniques for loading and unloading railroad cars and highway trailers, using the railroad spur track which feeds into the Auditorium at its south side.

The American Management Assn.'s program for Packaging Week will open with the first Conference session at 10 a.m. Tuesday, April 1. The doors to the Exposition will swing open at noon that day. Exposition hours will be from noon to 6 p.m. on Tuesday, noon to 10 p.m. on Wednesday, noon to 6 p.m. on Thursday and from 10 a.m. to 3 p.m. on Friday, the final day.

As usual, the Conference will occupy the first two and a half days, although there are seven sessions scheduled this year, necessitating concurrent sessions on Tuesday afternoon and Thursday morning. The Monday afternoon program offers a choice between a session on "Merchandising Aspects of Packaging" and one on "Improved Production Methods." On Thursday morning the concurrent topics are "Cost Data and Package Handling Practices" and "Broadening Uses of Multiwall Paper Shipping Sacks."

One of the outstanding features of the Conference will be a case study program to be staged on Wednesday afternoon by a group of eight General

Motors packaging executives, graphically explaining the packaging philosophy, methods and progress of the company. This will include an exhibit of representative products from the various GM divisions, presented in their actual unit packages and shipping containers.

According to AMA, General Motors has agreed to leave its exhibit of packages on display in the Ballroom for the balance of the week, during the exposition hours, and will have its representatives on hand to answer any questions.

As usual, badges of Conference registrants will admit them to the Exposition without re-registration, but badges issued for the Exposition only, for which there is no charge, are not valid for the Conference. Conference registration fees are, for members of the AMA, $20 for the full program, $10 for one day and $6 for one session. Non-members are welcome, but will pay slightly higher fees of $30, $15 and $8, respectively.

Tickets for advance registration for the Exposition, to avoid waiting in line, can be obtained from exhibiting companies, from the AMA at 330 W. 42 St., New York, or from Clapp & Poliak, the Exposition managers, at 341 Madison Ave., New York.

As is customary, several other packaging organizations will have meetings in Atlantic City during Packaging Week.

The Packaging Institute will have its annual spring luncheon meeting, sponsored by the Technical Committees, at 12:30 p.m. Wednesday, April 2, at the Ritz-Carlton Hotel, with F. S. Leinbach as general chairman. Guests will be welcome at the luncheon and at many of the committee meetings which will be held immediately following luncheon. The board of directors of the Packaging Institute will meet at 2 p.m. Tuesday, April 1, at the Ritz-Carlton. The Packaging Institute also will have a booth at the Exposition, provided by the management.

The Package Machinery Manufacturers Institute will have its semi-annual meeting and banquet at the Hotel Dennis on Sunday and Monday, March 30 and 31, with the business sessions and banquet on the latter day.

The Packaging Assn. of Canada will maintain headquarters at the Hotel Shelburne and requests all Canadians attending to register and obtain special badges there.

The Planning Council of the American Management Assn.'s Packaging Division, in charge of the conference program, is headed by Paul O. Vogt of General Electric Co. as chairman and includes W. Gordon Bennett of Anaconda Copper Mining Co.; J. J. Clarey, Jr., of Bristol-Myers Co.; R. de S. Couch of the Department of Commerce; Edgar J. Forio of The Coca Cola Co; Lee R. Forker of Quaker State Oil Refining Corp.; Henry J. Howlett of Container Laboratories, Inc.; W. B. Keefe of Westinghouse Electric Corp.; Douglas Kirk of The Quaker Oats Co.; Richard W. Lahey of American Cyanamid Co.; L. W. Ledbetter of Ralston Purina Co.; Stanley W. MacKenzie of United States Rubber Co.; A. Douglas Murphy of Standard Oil Co. (N.J.); Donald W. Pennock of Carrier Corp.; M. C. Pollock of C. A. Swanson & Sons; Chester R. Reed of The Texas Co.; W. L. Romney of The Procter & Gamble Co.; Jack L. Ware of Sears, Roebuck & Co.; John A. Warren of American Home Products Corp.; John R. Whitaker of American Stores Co.

Chairman of the Exhibitors Advisory Committee on the Exposition is Robert D. Handley of Western Package Products Co., who has been assisted by John C. Clay of National Adhesives; Alan S. Cole of MODERN PACKAGING; N. A. Fowler of General Box Co.; Marshall Haywood, Jr., of *Packaging Parade;* Millard J. Hooker of The Dow Chemical Co.; D. S. Hopping of Celanese Corp. of America; M. P. Junkin of National Metal Edge Box Co.; B. C. Lewis of Peters Machinery Co.; Clarence F. Manning of Reynolds Metals Co.; Russ Matthews of Union Carbide & Carbon Corp.; Paul Meelfeld of The Hinde & Dauch Paper Co.; Tom Miller of Package Machinery Co.; L. B. Steele of E. I. du Pont de Nemours & Co., Inc.; Glenn Stewart of Kalamazoo Vegetable Parchment Co.; Rex A. Stone of Triangle Package Machinery Co.; Fllovd L. Triggs of Riegel Paper Corp.; Mills W. Waggoner of Better Packages, Inc.; Richard Wellbrock of New Jersey Machine Corp.; Ben M. Williams of Gaylord Container Corp.

In addition to the attached complete guide to the Exposition and Conference, the alphabetical list following—including all exhibitors who answered MODERN PACKAGING's questionnaire before the issue deadline—gives details of exhibits, names of key personnel and hotel headquarters:

A-B-C PACKAGING MACHINE CORP. *Booths 638, 640.* Exhibition of an A-B-C automatic top and bottom short case sealer and an A-B-C Junior Model semi-automatic top and bottom case sealer. *Personnel:* O. A. Rupp and G. E. Miller. *Hotel:* Dennis.

ACME STEEL CO. *Booth 302.* Acme-Champion round wire stitchers, single- and multiple-head models; demonstration of single- and double-head Silverstitchers; a complete line of accessories and coil mounts. *Personnel:* F. R. Grove, A. G. Denne, V. J. Fiore, W. T. Blue, B. E. Cunningham, M. G. McGuinn, H. E. McGrath, N. J. Lynch. *Hotel:* Shelburne.

ADDISON-SEMMES CORP. *Booths 1111, 1113.* Corrugated board pallet and patented inner packing for glass and other frangible items. *Personnel:* J. S. Addison, D. R. Semmes, R. E. Frase, B. C. Nelson. *Hotel:* Claridge.

ALLEGHENY STEEL BAND CO. *Booth 1155.* Display of complete line of steel band for both packaging and carloading; a full line of tools and accessories to suit all box strapping and unit load requirements. *Personnel:* J. W. Dunbar, L. Frey, L. Kness. *Hotel:* Claridge.

AMERICAN CAN CO. *Booth 312.* Examples of versatility of Canco containers, as well as lithographing facilities on exhibit. *Personnel:* T. E. Alwyn, G. U. Baylies, T. F. Brennan, G. F. Henschel, F. G. Jewett, J. W. King, A. O. Morkish, R. M. Roberts, V. K. Shuttleworth, C. S. Stephens, E. K. Walsh. *Hotel:* Claridge.

AMERICAN PARTITION CORP. *Booth 301.* Will feature American Pre-Assembled Interlocking Partitions with a Kwik-pac display unit featuring a series of 32 slides. Expanded production facilities will feature chipboard, fibreboard and corrugated partitions assembled and interlocked for packaging various items. *Personnel:* M. Chernin, C. Nooy, A. Zelt. *Hotel:* Claridge.

AMERICAN TYPE FOUNDERS, INC. *Booths 763, 767.* Exclusive and outstanding features of the ATF Klingrose rotogravure presses. *Personnel:* E. Klingelfuss, E. Stacy, F. Gerhart, F. Hacker. *Hotel:* Chalfonte-Haddon Hall.

AMSCO PACKAGING MACHINERY, INC., MILLER WRAPPING & SEALING MACHINE CO. and SIMPLEX PACKAGING MACHINERY, INC. *Booths 325, 333.* Corley-Miller Model MPS wrapping machine; Corley Model BL-2 sheeter-slitter; Simplex-O-Matic packaging machine; Simplex Model 4-7 bag maker for polyethylene; Simplex Model 8-7 bag maker for barrier bags; Amsco rotary sealers for cellophane and *(This listing continued on page 360)*

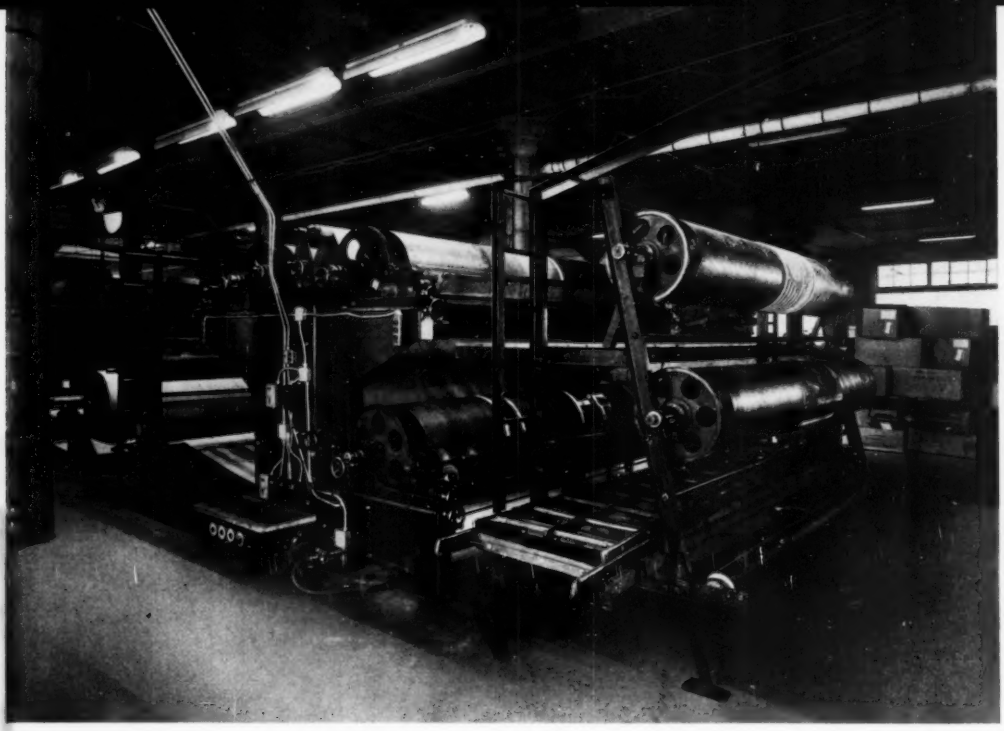


PHOTO COURTESY BEMIS BRO. BAG CO.

WORLD'S BIGGEST is the way this 128-in. aniline press, recently installed in the bag-maker's plant, is described. Using economical rubber plates, the press can tint, color and print over an area as large as 8 ft. by 10 ft., 7 in.

Bigger printed bags

NEW GIANT-SIZED ANILINE PRESS MAKES POSSIBLE COLORFUL PACKAGES FOR ARTICLES AS BIG AS MATTRESSES

Printing-press limitations have always posed a serious problem in the printing of very large paper packages, such as mattress bags, despite the fact that many progressive manufacturers have recognized the desirability of utilizing the "billboard" value of generous package surfaces. Recently, however, the development of a new aniline-type printing press, described as the largest in the world, has opened up entirely new vistas for the high-speed, economical printing of even the largest size of paper packages.

An outstanding example of the work which can be done on this press is the striking new mattress bag just adopted by Sealy, Inc., one of the world's largest mattress manufacturers.

Thanks to the basic economies of aniline printing,* plus the fact that the new press makes it possible to tint, color and print over an area as large as 8 ft. by 10 ft., 7 in. in one operation, the new Sealy bag for the first time now is printed in three colors and features the famous Sealy trademark showing a glamour girl cradled on one of the company's mattresses.

The new Sealy bag supplants an earlier bag of similar three-ply kraft-paper construction which carried only the Sealy name for identification. The earlier bag also had the same type of self-seal closure as the new printed bags and did a similarly effective job of protection.

However, the former bag lacked the eye appeal and merchandising punch of the new version and was primarily utilitarian in purpose. Printing was not used extensively on the earlier packages because on previously available equipment such a job was relatively costly, requiring the stripping in of printed sections prior to the tubing operation, during which

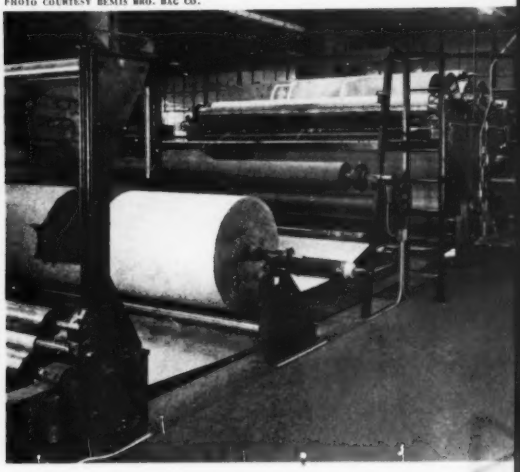
* See "Aniline Printing," MODERN PACKAGING, June and July, 1950.

PHOTO COURTESY SEALY, INC.



TYPICAL PRODUCT of big press is this three-color-printed bag, holding full-sized mattress measuring 53½ by 6¾ by 80½ in., which wins new brand identity for Sealy. Printed design is sealed so same set of plates is used for full- and twin-sized mattresses, eliminating the need for duplicate plates.

PHOTO COURTESY BEMIS BRO. BAG CO.



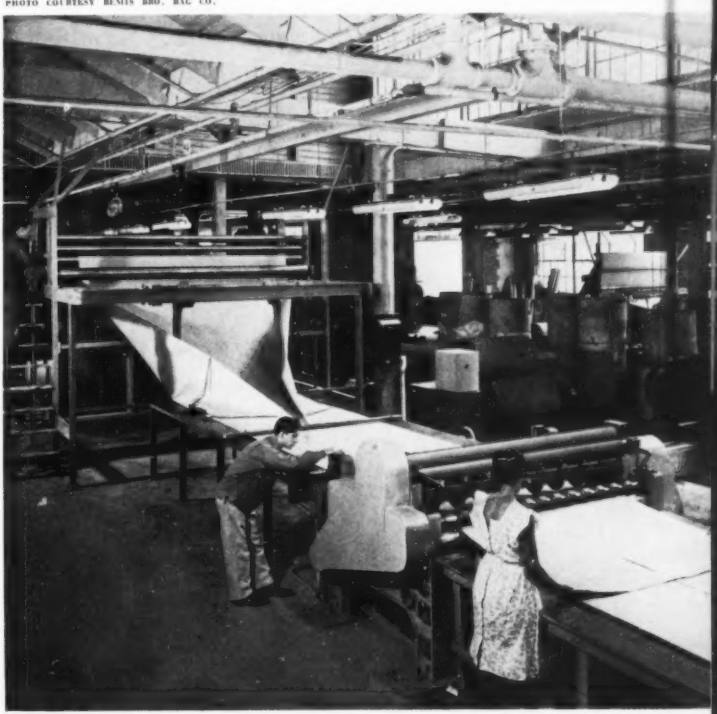
OVER-ALL VIEW of the press from its rewind end shows the Sealy mattress bag being printed. Feed is from large roll at center foreground through color units in background, returning, near floor, to rewind stand at left, with printing on under side of web.

the kraft material is formed into the finished bag.

Sealy sales executives are enthusiastic about the new bags because they offer the company an important new merchandising vehicle. As pointed out by J. R. Lawrence, vice president in charge of sales, who spearheaded the development and adoption of the new printed bag, mattresses usually go all the way to the ultimate consumer in the original package. From the time they leave the factory until they reach the ultimate purchaser, they pass through many hands and are seen by many potential mattress buyers. This provides an excellent opportunity to utilize the package surface as a traveling billboard or poster highlighting the familiar Sealy trademark. Neighbors who see a packaged Sealy mattress being delivered next door will have no difficulty recognizing its identity.

Printed in powder blue, flesh tone and purple, and inviting immediate attention with its illustration of the Sealy girl reposing on a cloud-borne mattress, the new bag ties in perfectly with the company's advertising and merchandising program, which is built around this trademark. In case the durable bag is retained by the mattress purchaser for storage of blankets or other purposes, the at-

PHOTO COURTESY BEMIS BRO. BAG CO.



BAG MAKING follows immediately after printing. This tubing machine is one of the largest in the industry. The bags are sealed at one end and the flaps of the open end are coated with self-sealing material.



PACKAGING is a matter of seconds, as mattress is slipped into bag and cohesive-coated end flaps pressed together. This is crib-sized mattress packaged by Kidcraft; note the effective decorative treatment of the bag.

tractive package is a constant reminder of the Sealy brand.

The original version of the well-known illustration was painted about 1941 by A. Varga, creator of the famed Esquire Girls and famous for his renditions of fetching femininity. Prior to 1941, Sealy for many years used a more prosaic illustration along the same general lines, with the slogan, "Sleeping on a Sealy is like sleeping on a cloud." The same slogan appears on the new bag, printed in purple against a curved, ribbon-like background in flesh tone. The only other copy on the top surface of the bag is the Sealy script logotype and the phrase, "America's Finest Mattress," which are also printed on the gussets of the bag.

The new Sealy bag is of triple-wall kraft construction to meet Consolidated Freight Classification requirements. Bags are of two sizes—53½ by 6¾ by 80½ in. for the standard-size mattresses and 38½ by 6¾ by 80½ in. to fit the twin-size mattresses. The printing is so scaled that the same set of plates is used for both sizes, eliminating the need for duplicate plates and helping to hold printing costs at an economical level. The bags are fabricated with one end sealed and the other end flaps coated with a self-sealing type of cement which adheres only to itself. Standard procedure in the 27 strategically located plants producing Sealy mattresses is to slide the complete mattresses off the end of a sloping table directly into the open end of the bag, then fold down the precoated flaps for an immediate, secure seal. No stitching or other closure operations are required.

Added to the basic economy of the aniline-printed bags is their compactness (they are delivered to the factories folded), their light weight and the fact that they are ready to pack immediately without any preliminary setting up or other preparation. For certain types of mattresses which require firmer support in handling and shipping, Sealy still uses corrugated shipping containers.

Crib mattresses, although smaller in size than the standard variety, present a similar packaging problem. One of the first crib-mattress producers to adopt completely printed bags made on the new super-size aniline press is Kidcraft Mfg. Co., Chicago, which turns out a large volume of the mattresses daily in a variety of designs and colors. Irv Sohn, executive of the company, says that the firm likes the printed bags because they keep the company name and trademark before the public and reinforce advertising and promotional efforts.

The closed size of the Kidcraft bags is 28½ by 5 by 53¾ in. They are printed in white and blue, featuring a portrait of a chubby infant and having a series of wide white stripes which serve as a background against the natural color of the kraft paper. Company name and address appear on both gussets of the package, insuring immediate identification. These bags also have the self-sealing feature and come to the manufacturer with one flap folded back so that there is no chance for the sealing surfaces to come together until the final closure is made. Before each bag is packed, a rubber stamp is applied which denotes the pattern and color of the mattress to be placed within it. Sliding the small mattresses into the bags and making the final closure requires only a few seconds.

The full-size mattress bags are made of 70-70-60 kraft of 200-lb. test and are approved for interstate shipments via rail and truck. They weigh approximately 5 lbs. as against approximately 15 lbs. for a corrugated shipping box. The depth of the bags ranges from about 7 in. up to 9½ in. for mattresses of the sponge-rubber variety.

The aniline press which makes such bags possible is said to be the only press now operating which will print a web of paper as wide as 128 in. This means, for example, that the press can print a mattress bag on two sides and two gussets in three colors, as well as butt printing. For other presses to accomplish the same result requires printing two sheets of kraft paper, then matching up the brands on the tuber, keeping the sheets in register during the tubing process—a very slow and expensive operation. Heretofore, the only mattress-bag printing has been in two colors, one side and two gussets, using the printed roll as a splice paper on the tuber.

In addition to the type of printing involved in bags for mattresses, insulation batts, etc., the press can also be used to give an over-all tint to a complete web of paper. The "repeat" of the press is 90 in.

The use of relatively inexpensive flat rubber plates which are adhered to the plate cylinders by means of "sticky back" material permits plates to be changed with a minimum of delay and makes relatively short runs economically feasible. Among the mechanical features of the press are the completely hydraulic lift, which permits lifting the colors off in a single operation; free rotating ink rollers and 360-deg. circumferential running register control. The latter permits close register adjustment without stopping the press.

The tuber on which the bags are fabricated after printing is one of the largest in the industry and was designed and built by the bag manufacturer. Following the tubing operation, end sealing of the bags and application of the self-adhering adhesive to the end flaps are handled on other equipment.

CREDITS: *Wolverine Hydro-Printer press built by Wolverine Paper Converting Machinery Corp., Detroit, and operated in plant of Bemis Bro. Bag Co., St. Louis, which manufactures the bags described in this article.*

Candy house

APPEALING, VERSATILE FLOOR MERCHANDISER DOES A SUCCESSFUL YEAR-ROUND SELLING JOB IN MANY OUTLETS



1,194 SQ. IN. of shelf space are provided by 6-ft.-tall unit which takes up only 22⅜ sq. in. of floor space. It dispenses from four sides.



INTERCHANGEABLE cards fit into the corner-post and roof grooves for seasonal adaptability.



KNOCKED DOWN, the merchandiser may be easily shipped in a fibreboard box. The component parts of the unit—shelves, uprights and roof assembly—fit into the base, which fits into a shipping container.

An economical display unit with year-round utility that will get merchandise in new traffic locations and that can be adapted to practically any seasonal occasion is something which all merchandisers are eager to create.

The Norris Candy Co., Atlanta, Ga., devised what has turned out to be such a point-of-purchase merchandiser when it introduced its "Norris Candy House" last summer to overcome the lag in candy sales which prevails in the confectionary trade during the summer months.

The Candy House, planned in conjunction with an entirely new line of summer candies, is made to resemble a little cottage complete with shingle roof, chimney, clapboard sides and windows with flower boxes.

The display, with an over-all height of 72 in., takes up only 22⅜ sq. in. of floor space, yet affords a total of 1,194 sq. in. of shelf capacity. An access door is located on one side of the base where there is a total storage capacity of 8 cu. ft.

The roof and side panels are removable and may be replaced throughout the year for various seasonal promotions such as Christmas, Valentine's Day, Easter, etc. When dismantled, the roof and supporting members fit into the base or what would otherwise be the storage bin, making for convenient shipment in a fibreboard box to dealers all over the nation.

The Candy House was introduced to dealers by means of accurately scaled miniatures which the Norris salesmen carried. The unit met with instant response and enthusiasm.

"We knew we had something good," said R. Lawton Henderson, president of Norris Candy Co., "but even we were surprised at the acceptance of the novel idea and the boost it gave to our sales."

The Candy House helps to move boxed candies from the already crowded confectionary counters and assures them a prominent place in the retail outlet, making an efficient "island" unit with dispensing on four sides readily accessible at a comfortable height. The display and the Norris trademark are visible from practically any distance in the store.

The interchangeable-panel feature for special seasonal promotions permits year-round use of a unit constructed of durable materials—wood with all exposed members lacquered white and with lower panels of laminated fibreboard, silk screened with the window and flower-box design. The seasonal cards may be interchanged easily in the rooftop and base by means of grooves for sliding the cards in and out. The display is easy to keep clean simply by wiping with a wet cloth.

The unit is also opening up undeveloped markets, the company reports, as it provides a self-contained merchandiser, with storage space, for such unattended outlets as railway and airport terminals, as well as theater and hotel lobbies where there is a great potential for boxed candy to the transient trade.

CREDITS: *Display designed and sold by O'Connor of Atlanta, Ga., and made by Greer Industries, Fayetteville, Ga.*

SCALED miniature shown on shelf of actual unit was carried by salesmen making calls.



New surgical convenience

A TREND TO WIDER USE OF FOIL-FILM ENVELOPE THAT DELIVERS STERILIZED SUPPLIES READY FOR USE

One of the significant packaging trends that has developed in the past year is the pre-packaging of surgical, medical and first-aid necessities in foil-film laminate envelopes which can be sterilized, ready for use, after being hermetically sealed.

Since details of the pre-packaging and sterilization techniques for one of the first applications—vinyl surgical drapes—were published just 12 months ago*, military medical requirements, the stockpiling of first-aid supplies as part of the Civil Defense program and the general streamlining of hospital surgical procedures all have contributed to a growing demand for more and more pre-packaged surgical supplies. Such items as treated gauze bandages, hypodermic needles, surgical thread and infusion sets for injection of blood and saline solutions are now available in pre-packaged, sterilized form.

To a busy doctor, nurse or corpsman, these pre-packaged medical materials have obvious advantages. The package insures that the unit will remain sterile indefinitely and that it can be opened by hand for use quickly under any conditions. Re-sterilization at the point of use, previously required, is now generally not necessary. For the manufacturer, the package assures that brand-name identity will carry through to actual use.

For each of the products described below, the same packaging material is used—a special lamination of vinyl film to aluminum foil which has been perfected to withstand the severe conditions imposed by autoclave sterilization. Once heat sealed (the vinyl film provides the inside sealing surface), the envelopes or packets are impervious to moisture or contamination. Where the packages are printed, rotogravure inks modified for high-temperature resistance have been used.

*See "Pre-Packaged for the Surgeon," MODERN PACKAGING, March, 1951, p. 96.



PHOTOS COURTESY THE DOBECKMUN CO.

PRE-PACKAGED infusion sets must go through longer sterilization period at higher temperatures than other products. Foil-film lamination and envelope construction have held up well in such rigorous processing.

Largest known sterile pre-packager at this time is Chesebrough Mfg. Co., Cons'd, New York, makers of Vaseline brand products. Chesebrough produces special sterile, petrolatum-impregnated gauze dressings in three sizes, which are used in the treatment of wounds, burns, abrasions, etc. Major advantage in using the foil-film envelopes for these dressings is that for operating-room use the exterior of the bag can be sterilized either by heat or by cold sterilization in a suitable antiseptic solution prior to opening. The sterile dressings are packaged without inner wraps in two styles of envelopes: a single unit for the two larger-sized dressings (6 by 36 in. and 4 by 36 in.) and a duplex envelope which contains two small dressings (3 by 18 in.), each in its individual compartment. Both styles are printed in the familiar blue-and-white color scheme that identifies Vaseline brand

products. The packaging of these sterile dressings is done by a special staff, trained in the latest aseptic techniques, in a new, air-conditioned "germ-proof" section, isolated from the rest of the company's units. Some of the operations are done by hand; others are performed on semi-automatic and fully automatic equipment.

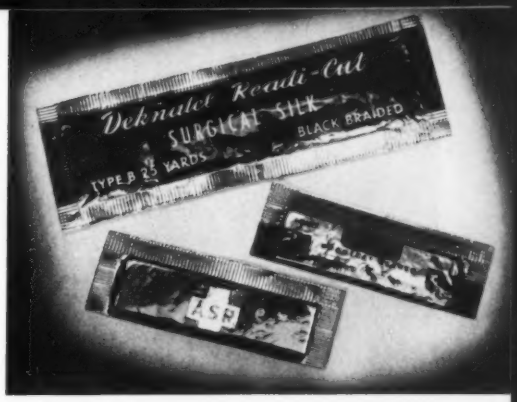
Davis & Geck, Inc., a unit of American Cyanamid Corp., Brooklyn, has entered the pre-packaged treated dressing market with the first broad-spectrum antibiotic surgical dressing, Sterilized Aureomycin Dressing. Relatively new, Davis & Geck's gauze dressing represents another step forward in convenience and safety in treating wounds of all kinds. It is recommended for use wherever a non-adhering dressing with effective antibacterial action is needed—on, for example, skin graft-donor and recipient areas, indolent ulcers, burns, surgical incisions, amputation stumps, abrasions and avulsions, etc.

Hypodermic needles, packaged automatically in small foil-film pouches, are now offered by a number of surgical-goods suppliers and pharmaceutical manufacturers, including Wyeth, Inc., Philadelphia, and Eli Lilly & Co., Indianapolis. High-speed wrapping machines such as are used to form and fill single-unit packages for penicillin, vitamins, headache tablets and other drug products have been adapted to package these surgical needles.

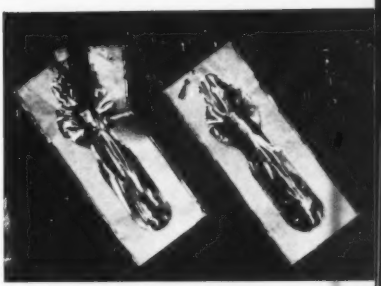
One of the most interesting and challenging applications of this pre-packaging technique comes from the West Coast, in Seattle, Wash., where the King County Central Blood Bank is putting up sterile infusion sets. To sterilize these sets, consisting of tubing, a glass "flow" indicator and injection needle, a far greater degree of heat and time in the autoclave must be applied than in any of the other items mentioned. It was, in fact, due largely to the experiments in Seattle in developing the package for these infusion sets that important improvements in the foil-film laminate envelope construction were made.

Rounding out the number of new medical materials being pre-packaged are such items as surgical thread and surgical blades. J. A. Deknatel & Son., Inc., is packaging the surgical silk; American Safety Razor Corp. and Christy Surgical Co., the blades. A major advantage for surgical blades is the hermetic sealing against moisture to protect the sharpness and condition of the blades.

Experiments are now under way, it is reported, by a number of major medical-supply companies to produce quantities of other pre-packaged materials that would be needed in case of atomic attack.



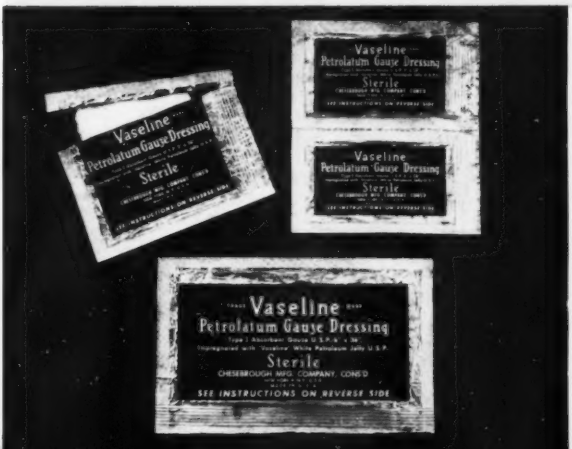
HERMETICALLY sealed pouches for surgical blades and thread protect these items from moisture, assure proper condition and sharpness in the case of blades.

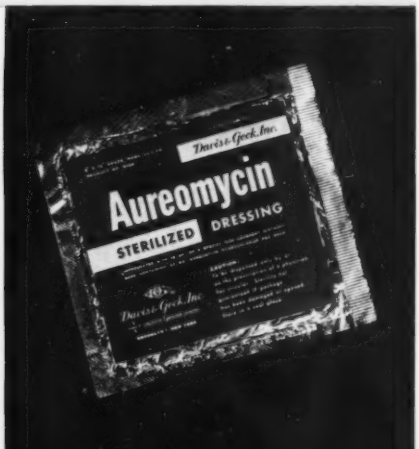


HIGH-SPEED automatic packaging machines, equipped with special dies, turn out these unit packages of hypodermic needles.

CREDITS: *Envelopes fabricated by Ivers-Lee Co., Newark, N. J., and Cellobag Co., Seattle, Wash., using "Metalam" material laminated and rotogravure printed by Dobeckmun Co., Cleveland.*

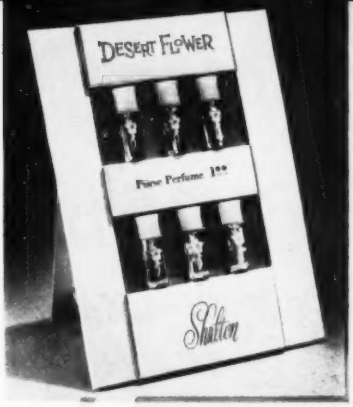
STERILE PACKAGING of treated-gauze dressings simplifies final sterilization before opening, since envelopes need only be dipped in antiseptic solution. Chesebrough's Vaseline brand is a large user of these packages.







"Squeeze 'n Wash"—a polyethylene bottle with a brush-fitted closure for washing dishes, shampooing, etc., without wetting the hands—is merchandised by Anro Products Co., Inc., in a display carton holding 12 of the bottles. Soap is put into the 6-oz. bottle, which is then filled with water and the brush slipped over the top. Controlled amounts of suds are dispensed with a squeeze of the bottle. "Millsplastic" bottles, Elmer E. Mills Corp., Chicago. Display carton, Superior Carton Co., Chicago.



Shulton's newly designed easel-back display card for its Desert Flower Purse Perfume is all white, in keeping with the redesigned packaging for the entire line. Held by elastic cords, the perfume bottles show off to advantage and are easily removed for selling and stock replacing.

DISPLAY GALLERY



Life-size figure of Godfrey as a juggler of Kingan's Beef Stew measures 7½ ft. from floor to tip of topmost can. Lithographed in full color on die-cut paperboard, it makes a forceful tie-in at point of sale with Kingan's Sunday TV show, "King Arthur Godfrey's Round Table." Display was distributed nationally to Kingan's retailers. Display, Einson-Freeman Co., Inc., Long Island City, N. Y.

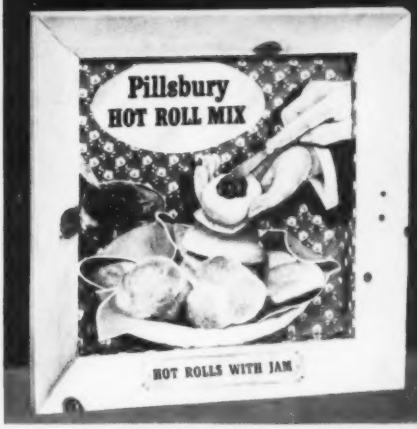


Nine bottles of Echo Spring Kentucky Straight Bourbon are held in this three-dimensional "Wishing Well" floor stand for Melrose Distillers Corp. Lithographed in eight colors, the unit is half round in front and flat in back. Full art repeats appear on the flat side. Fluorescent inks are used on the roof section and the graduated "Echo Spring" sign that runs from the inside of the wishing well into the roof section. Display, Wesco Associates, Inc., New York.



A realistic reproduction of a large-sized television set is Charter Oak's latest display piece. The TV actor's hand, holding a highball glass, moves up and down and the display lights up as his hand is raised in a toasting motion. Top panel is silk screened in fluorescent inks. Animation, Lejac, Inc., Reading Pa.

Pillsbury Mills has brought out another in its series of shadow boxes, indicating the success of this display technique. This one, for Pillsbury Hot Roll Mix, has a simulated knotty pine frame, with hands, rolls and jam on a forward plane. An acetate mirror oval at the top features the product name. Display, Consolidated Lithographing Corp., Carle Place, Long Island, N. Y.

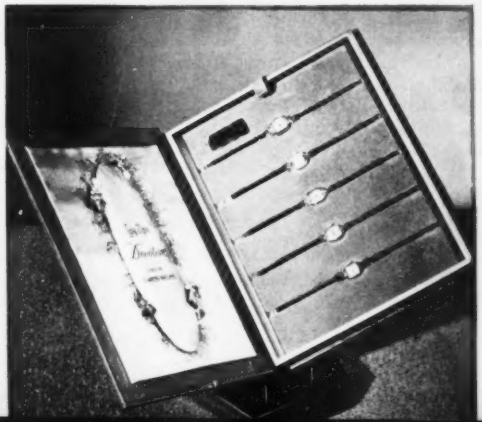




A popular assortment of both single rolls of film and the 3-Roll Economy Pak are displayed in these dispenser displays, two in a series recently introduced by Ansco. At left is a revolving, self-service rack holding 96 single rolls and 64 Economy Paks, made of white enameled steel, 19 in. high and 10 in. in diameter. The glass cabinet measures 5 by 11 in., in which the dealer can arrange any variety of films desired. Revolving display, Davidson & Hansen, Inc., New York. Glass display, Wetzel Display Case Co., Wabash, Ind.



This "Jump Test" point-of-sale merchandiser for the new Inner-Seal weather stripping by Bridgeport Fabrics, Inc., is designed to demonstrate the product's live-rubber snap action. An actual piece of the weather stripping is attached to the upper left side of the display with an invitation to customers to "Snap It!" Display carton, Hinde & Dauch Paper Co., Sandusky, Ohio.



The Elgin National Watch Co.'s combination carrying case, counter tray and display piece for the Lady Elgin series of diamond watches opens like a book. Inside cover is fitted with a satin puff and five watches fit into the removable velvet-covered tray. A small rack is provided for mounting the case for window or counter display. Display, Harve Ferrill & Co., Chicago.

Automatic rice

NEW IN-PLANT BAG MAKERS AND FILLERS BRING NEW ECONOMIES AND APPETITE APPEAL TO PRINTED CELLOPHANE PACKAGES



FULL-COLOR rotogravure-printed illustrations of complete rice dishes on each side of cellophane bags promote sales through eye appeal. Four brands of rice are packaged at Louisiana State Rice mills in this way.

Can appetite appeal, volume output and economy be attained in a practical package for rice? The experience of the Louisiana State Rice Milling Co., America's largest rice millers, provides an affirmative answer. With the cooperation of a packaging machinery supplier and a leading converter of packaging materials, this company three years ago instituted a complete change of procedure in the packaging of four brands of rice at its Abbeville, La., plant.

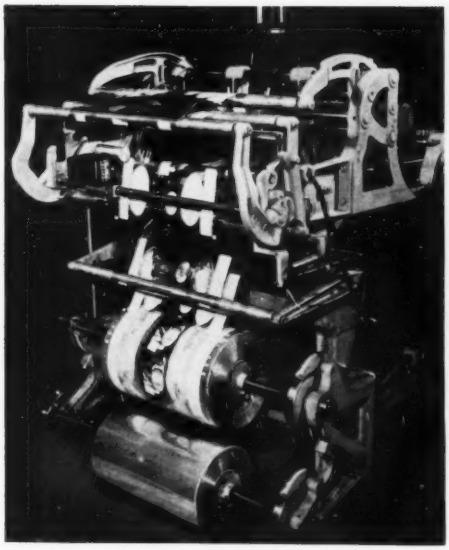
Formerly these brands—F.A.G., Watermaid, Watermaid Long Grain and Mahatma—were packed in a relatively costly laminated film prefabricated bag which required glue sealing for a secure closure. Top production rates on the 1-lb. bags was 25 packages per minute. Upon the recommendation of packaging engineers representing the machinery supplier and the converter, the company installed two automatic bag-making units and three machines which fill and close the cellophane bags. This installation made it possible to switch to a cellophane roll stock, resulting in increased production coupled with a reduction in both labor and material costs.

With the new set-up, the 1-lb. rice packages are produced at a rate of 35 per minute, with a corresponding increase in output of the 2- and 3-lb. packages. The duplex style No. 300 cellophane stock now used is converted into sturdy, heat-sealed packages on the automatic bag units, eliminating the necessity for using glue entirely.

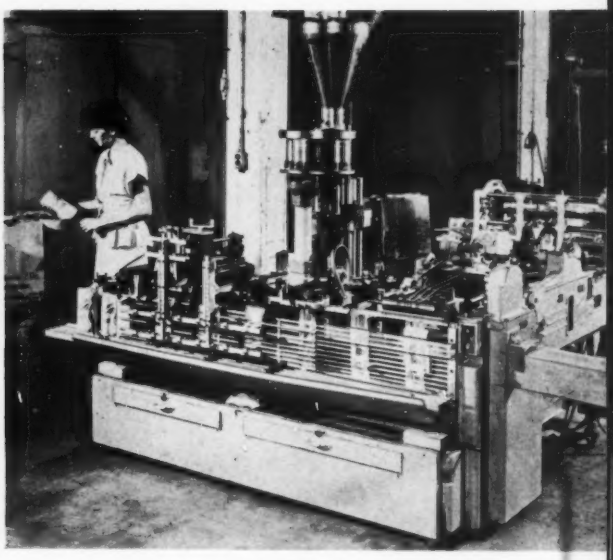
Each packing unit is attended by a single operator with the assistance of a "floating mechanic" who changes cellophane rolls and makes any equipment adjustments necessary. The polished rice is fed to the machines automatically from an overhead hopper. Each operator packs the completed packages of polished rice in units of 30 in heavy kraft bags or "bales."

Package design also received its share of attention when the change-over was made. Sales potential of the packages was stepped up by adopting full-color rotogravure-printed designs which included two vignettes of appetizing rice dishes on each package, coupled with the appropriate recipe. The bag-making equipment is equipped with an electric-eye control which insures perfect centering of the designs on each package. The company has been so pleased with the new packaging set-up that since the original installation, another bag maker and nine more filling and closing machines have been added. Future plans call for the installation of similar equipment at other Louisiana State mills to round out the company's packaging program.

Some of the principal features of the new packaging approach have been summarized as follows by W. B. McMillan, director of sales for the company "By buying cellophane in rolls rather than buying prefabricated bags, we have reduced material and labor costs. In addition, we are able to store the roll stock more economically and keep it over longer periods of time without depreciation. We are also able to transfer inventories from one mill to another at a lower transportation cost.



PREPRINTED ROLL STOCK enters bag-making unit for conversion into a Watermaid rice package, heat sealed and ready to be filled on continuous automatic packaging line. Bags are of duplex construction.



AUTOMATIC FILLING and sealing machines fill 3-lb. bags of Mahatma brand of rice. The operator packs the complete packages in heavy kraft bags or "bales" of 30 each for shipment. The polished rice moves by gravity flow to hoppers from the floor above.

PHOTOS COURTESY MILPRINT, INC.

"We are also very proud of the full-color rotogravure illustrations on the many different rice recipes we are now using on our cellophane bags. Realistic printing has provided eye appeal, which has stimulated impulse buying by food shoppers, giving us greatly increased consumer package distribution."

In addition to the mouth-watering recipe vignettes on each package, the new design allows a prominent position for price marking, an added convenience for both the retailer and the shopper.

The *Good Housekeeping* Seal is also included on the display panel, in order to reap its benefit as a sales aid. All of these factors tend to lift the new rice packages out of the routine category and give each of the four brands a competitive edge in the retail market, where self-service merchandising methods are placing increasing importance on eye-appealing packages which can sell themselves on grocers' shelves.

CREDITS: *Preprinted cellophane roll stock, Milprint, Inc., Milwaukee. Automatic bag-making units and machines for filling and sealing packages (Simplex-O-Matic), Miller Wrapping & Sealing Machine Co., Chicago.*



TWO UNITS in operation with operators packing completed packages in "bales" while "free mechanic" stand by to mount fresh rolls of cellophane as required. Each unit fills and seals 35 1-lb. packages a minute.

MORE PAN-PACKAGES

BAKING INDUSTRY IS MAKING INCREASING USE OF ALUMINUM FOIL STRUCTURES THAT SERVE AS BOTH THE PAN AND THE PACKAGE



COMPLETELY SURROUNDED by semi-rigid aluminum foil, Sarah Lee butter pound cake preserves freshness of rich ingredients. The paper label may be replaced by printing directly on the foil itself.

The baking industry has long evidenced the need for an economical, practical one-trip package to hold baked goods from the time the item goes into the oven until it is carried home by the consumer, as probably one of the most important means of reducing or eliminating costly labor handling in production, distribution and selling. A multi-purpose, semi-rigid, one-piece container of heavy aluminum foil, developed by one of the aluminum companies which has frequently contributed to advances in packaging, has proved most satisfactory in filling this need.

Since its first use by retail bakers nearly two years ago, the foil pan-package has been adopted by a number of large commercial bakeries, including the Kitchens of Sara Lee, New York and Chicago; Ortman's Home Bakeries of Omaha, Neb., and the Walter Freund Bread Co. of St. Louis, Mo., for sweet goods and other items that present special handling problems.

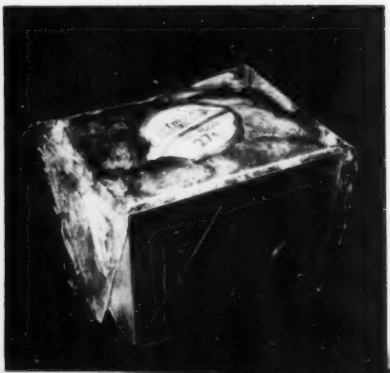
Use of the container as the package for many of the popular varieties of small cakes sold by retail bakeries pointed up its advantages to the larger bakeries. The necessity of preliminary pan greasing is eliminated because the cake does not stick to the smooth surface of the foil walls. Because of the rapid heat conductivity of aluminum, cakes and breads bake in the foil container more quickly and evenly, and cool in less time. Since they are offered for sale right in the "pan," no time or labor is spent in transferring the cake to a take-home container. A further saving in labor and materials is possible inasmuch as the cakes need to be frosted only on the top.

The foil containers are particularly

OVEN-TO-OVEN convenience is a feature of this brown 'n serve package, with its paper band label and cellophane overwrap, which taps a huge market. The rigid foil tray may be re-used as a refrigerator dish.



SIMPLIFIED handling and better protection led Ortman's Bakeries to adopt the rigid foil pan-package for its angel food cake.



effective from the display standpoint. Their bright sides add glitter to showcase displays, giving the products a quality appearance. Bakers find that the small sizes appeal to the smaller family of three or four persons and that even customers with large families like them because they are able to buy two different kinds of cakes for the price of a large one.

When selling the cakes, retail bakery clerks place the small containers in the usual baker's carton or bag. Customers report less cake damage in taking them home because the containers give more protection against crushing than conventional chipboard plates on which cakes are usually placed. Customers also have commented on the convenience of the container as a storage package, keeping the cakes fresh and moist for longer periods.

Stimulated by the success of the foil containers in the retail bakery field, various commercial bakeries began to investigate the possibilities of these oven-to-home packages, particularly for products needing special handling. Among the first of these products for which the container was selected was a rich but delicate cheese cake developed by the Kitchens of Sara Lee. The soft, fine texture of this cake make it difficult to transfer from a baking to a display container; it had to be kept under refrigeration during distribution and display, and the price of the ingredients made it so costly that the company felt pricing for volume sale in retail food outlets would be possible only if the cake could be marketed in a small size. All these factors influenced the selection of the pint-sized foil container as the package for the cheese cake.

Since the introduction of the new cheese cake, first in Chicago and later in New York, sales have increased so rapidly that the company has been unable to keep up with demand and recently has started quick freezing the foil-packaged cheese cake to permit wider distribution.

The entire line of Sara Lee baked sweet goods—including such items as a rich butter Danish-type coffee cake, home-style pound cake and two new products, Date and Walnut Loaf and Pecan Brownies—is now being packaged in aluminum foil containers of one type or another. The pound cake, like the cheese cake, is baked and shipped in a lidded style. At first a printed paper label was added to the cheese-cake lid, crimped on with a semi-automatic closing machine, but now the lid itself has the label design printed on it. Paper labels are still used for the pound-cake lids. For the coffee cake and brownies, tray packages of the heavy aluminum foil are combined with decorative paperboard sleeves and protective cellophane overwraps. The new date and walnut loaf made its debut in a corrugated foil-glassine folder with a sleeve-style paper label and cellophane overwrap.

The company adopted this corrugated foil-glassine, which serves originally as a pan liner when the loaf is baked, because of its decorative appeal and because it enabled the company to offer the loaf in a foil-surfaced package similar in appearance to the other Sara Lee packages. Since the loaf is baked at a low temperature, the liner is not subject to heat that would result in embrittlement of the glassine.

Ortman's Home Bakeries, which bake and distribute over 5,000 angel food cakes monthly in quart-sized all-aluminum-foil containers plus many more in pint sizes, have found that this type of oven-to-home package has enabled them to make angel food a staple item in the cake line instead of a specialty. This company completes the angel food cake packaging by adding a loose paper label on top and overwrapping the container with plain cellophane.

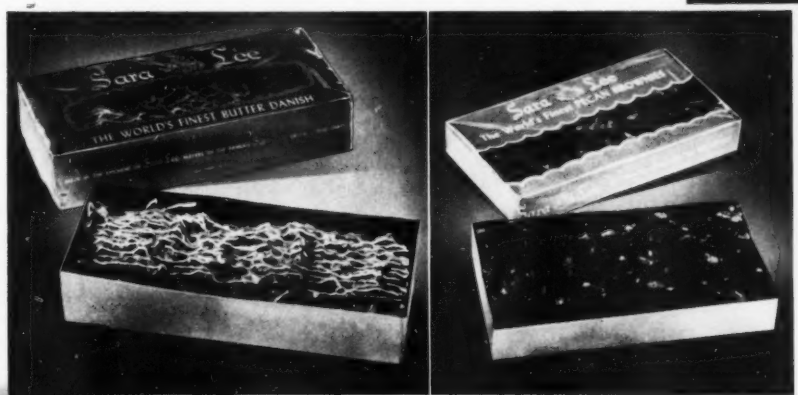
A growing number of commercial bakeries are reporting excellent success with the aluminum foil tray as an oven-to-home-to-oven package for the popular brown-and-serve rolls. The Walter Freund Bread Co., for example, partially bakes seed rolls, cinnamon buns and other items in the trays, overwraps them with cellophane and adds a band-style paper label. Consumer acceptance of the packages is said to be most favorable, since cooks like the way they eliminate transfer to another pan for final baking and, as the label copy mentions, the tray can be saved and reused as a refrigerator dish. Lack of size standardization for the brown-and-serve baked goods has been one stumbling block to date that deters the adoption of the container despite

(*This article continued on page 410*)

ALL PHOTOS COURTESY REYNOLDS METALS CO.

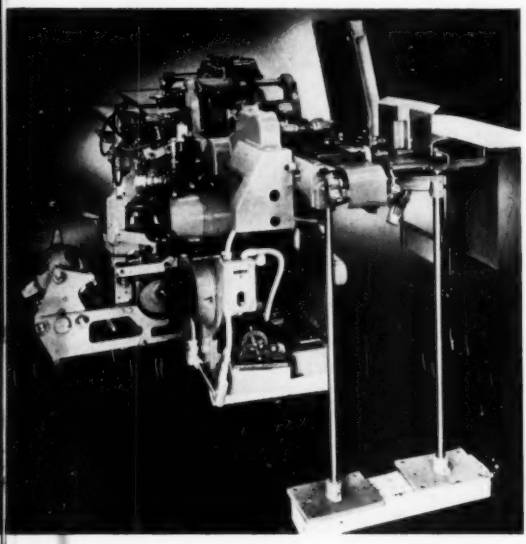


ANOTHER TYPE of shallow foil tray is used by Sarah Lee for such specialties as pecan brownies and butter Danish. Paperboard sleeve and cellophane wrap complete a sparkling package. Product can be reheated at home in the tray.



SIMPLEST FORM of foil container is one above, made of corrugated board which has glassine inside and foil outside. It has display and protection advantages with a minimum use of aluminum foil.

High-speed cigar wrapper adds opening tab

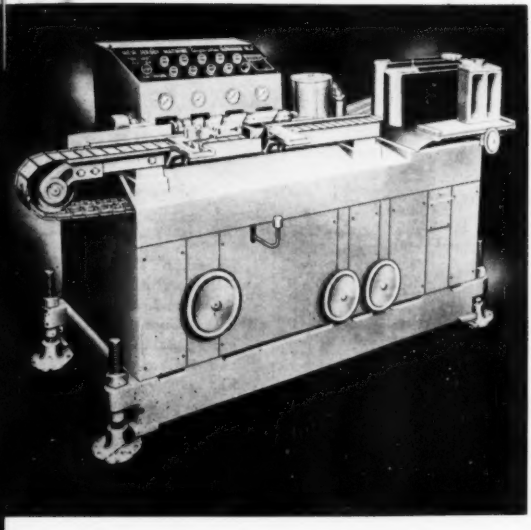


A new high-speed cigar wrapping machine that handles 120 cigars per minute—reported to be a 100% increase over the output of machines available previously—performs a series of operations including banding, wrapping and finishing the wrap with an opening tab. Developed by Package Machinery Co., Springfield, Mass., the unit is said to make a more air-tight wrap than was possible formerly using MST cellophane. For this reason the cigar band is used as an opening device. Bands are fed from a magazine onto the cellophane and positioned on the film which is fed in web form. Two small slits are cut in the edge of the cellophane alongside one end of the band to form the tab and when the wrap is heat sealed around the cigar this section is sealed lightly so that a tug at the end tears off the wrap without breaking the cigar.

Used as a single unit, the machine requires two attendants —one to feed and one to pack the wrapped cigars. The experience of one user, according to the company, indicates that when batteries of machines are installed, greater labor efficiency is possible. With a group of four, for example, one attendant can service the cigar feed magazines for all machines, thus a total of five persons is all that is needed. It would require eight of the former machines, each with an operator, to equal the output of 480 cigars per minute delivered by four of the new wrapping machines.

NEW MACHINERY

Automatic thermoplastic labelers for bottles



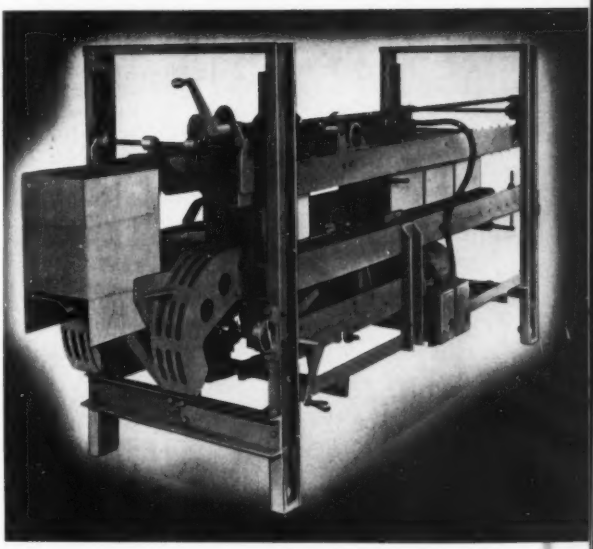
One of the two new bottle labeling machines which New Jersey Machine Corp., Hoboken, N. J., is introducing is designed to meet the needs of packagers for a fully-automatic unit with a moderate range of speed to apply thermoplastic labels. This labeler, named "Challenger," has a capacity of 150 bottles per minute and will handle flat or tapered bottles as well as round. A larger unit with the same operating features has a capacity of over 300 bottles per minute.

On both machines, push-button controls simplify the operator's duties so that unskilled labor can be used efficiently, according to the company. The smaller, more economical machine is reported to be of special interest to packagers who have short production runs, since no change parts for labels of different sizes are necessary. The vacuum method of handling labels used is said to permit automatic compensation for glass variations. To take care of proper label register on the bottle, the machine is designed with a small pinch roller between the label transfer cylinder and the delivery drum. This pinch roller overfeeds the leading edge of a label against a small register bar on the delivery drum, thus providing a mechanical method of squaring up labels before application. Both machines are units in the "160" series of the company's well-known LabelDri line.

Small-size semi-automatic case sealer

While most individual packaging lines are set up to deliver a continuous flow of finished packages ready to go into shipping cartons, the final casing and case sealing may be a bottleneck if the operation is done completely by hand. For this reason packagers who have not considered the installation of high-speed mechanical case sealers feasible for their lines will be interested in a new, small, semi-automatic case sealer made by A-B-C Packaging Machine Corp., Quincy, Ill., which is now being introduced.

First developed at the request of a meat packing company which wished to use case sealers at various packing stations where there was not enough space to install conventional sealers, the smallest model in this new "Junior" case sealer series is only 34 in. wide. It features a new type of collapsible flight lugs to carry cases squarely through the glue-applying mechanism and it is claimed these lugs eliminate case jams and damage to the carton or contents. The machine is built as a complete unit, the compression section being operated intermittently by limit switches. Glue pots and rollers are located in the center for easy removal, permitting a saving of 50% in clean-up and maintenance time, according to the company.



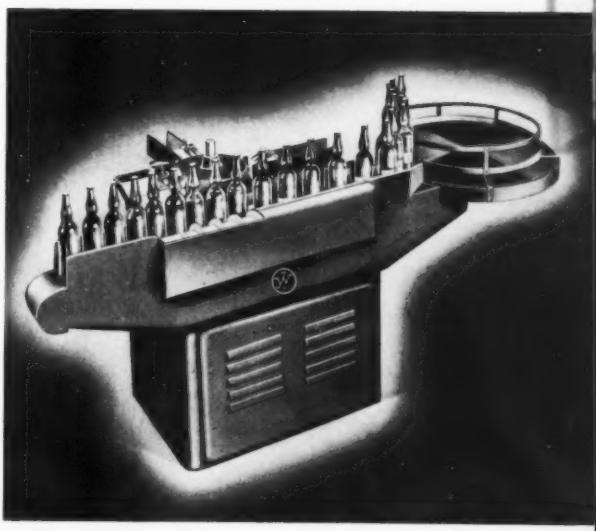
NEW MACHINERY

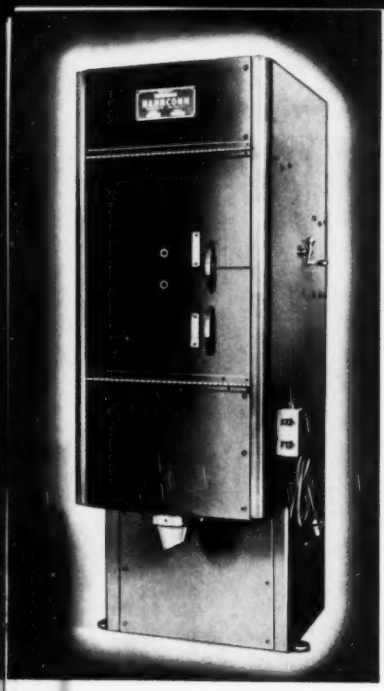
Straight-line bottle labeler from Germany

An interesting foreign-made automatic labeling machine for high-speed bottling lines is being shown to U. S. packagers by the American distributor, Alfred Hofmann & Co., West New York, N. J.

This constant-motion labeler, manufactured by Jagenberg Werke Akt-Ges., Dusseldorf, Germany, is designed to accommodate round bottles or jars up to 4 in. in diameter. Maximum label dimensions are 6¾ by 6¾ in. With a single label magazine, the "Blitz" unit illustrated has a maximum capacity of 9,000 bottles per hour. Another model, equipped with two label magazines, can label up to 15,000 units per hour.

In operation, the bottles travel through the machine on a flat, straight-line plate conveyor in an upright position. A spacing worm is used to time the bottle feed. The labeling unit is the rotary type, the glue applying cylinder being fitted with four segments which receive the adhesive from a transfer roll. The labels are picked from a reciprocating label magazine by this cylinder and transferred to the bottle by a gripper roll. After the labels have been applied, the bottles are carried between two forwarding belts and a sponge rubber pressure pad to the collecting plate.





Precision-built electronic filler

Extreme accuracy of measurement, better speed and ease of operation are mentioned by users as the outstanding features of a new electronically controlled, automatic weighing machine now being marketed by the Hannconn Machine Co., New York.

Aptly named, "Dial-A-Matic," because the basic functions of weight, speed, preliminary and final charge release are regulated by the setting of dial controls, the machine will handle either free flowing or semi-free flowing materials. After the material has been weighed, the dumping charge may be either manual or automatic, depending upon the way the machine is set. The feeding device itself is mechanical. The machine is available in two models, one covering a range of 1⅛ to 16 oz.; the other with a range from 3 oz. to 3 lbs. Maximum speed varies from 15 to 35 per minute, depending upon the type of material and the size of the charge.

Weight can be adjusted in steps of $\frac{1}{64}$ oz., according to the company, because the use of jeweled agate bearings and hardened, hollow-ground knife edges make possible a very sensitive weighing element.

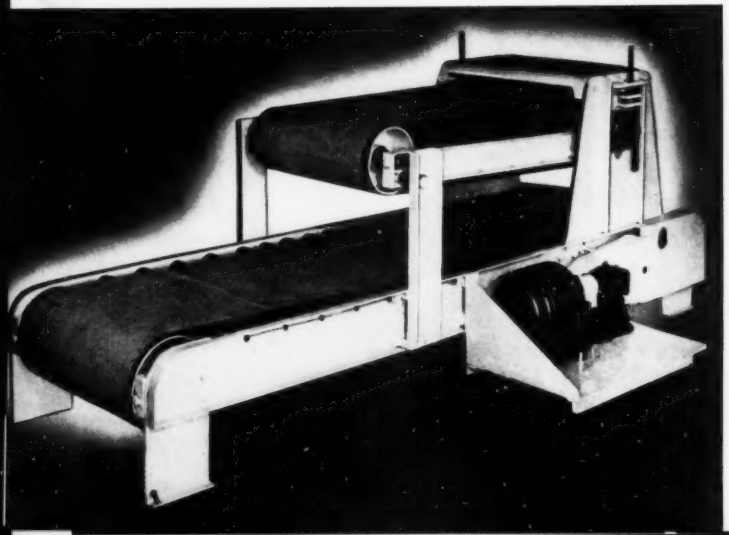
Other construction features said to contribute to the accuracy of the machine include: a double-valve action that reduces cut-off time; a special locking device that prevents shock from being transmitted to the knife edges and bearings during the bulk-filling period and a special electrical control system to prevent a contact break on the sensitive contacts controlling the weights. This system is said to assure a positive pressure when contact is made and to remove the hazard of contact oxidation. The entire scale unit, which is enclosed in a dustproof metal housing, can be removed without disturbing the machine installation when it is mounted on a packaging line.

NEW MACHINERY

Multiwall bag flattener handling aid

To give stability to filled multiwall and textile bags so that they will stack and handle well in shipping and warehousing—particularly if palletized—a new mechanical flattening unit is being produced by Bemis Bro. Bag Co.'s packaging service division in Minneapolis, Minn.

Primarily designed for use by packagers of powdered or granular products such as flour, starch, sugar, rice, seed grain, chemicals and fertilizers, etc., the flattener will compress and shape bags ranging from 50 to 140 lb. capacity. The compression range is from 9½ to 5⅜ in.



The machine operates semi-automatically and is delivered complete with a 1½ H.P. motor.

The belt width is 22 in. and the over-all length of the unit is only 8 ft., 9 in. which permits its use in crowded packing rooms.

Sturdily constructed, the supporting base and frame of the bag flattener are only 15 in. high at in-feed level; including the support for the compressing belt, the total height is 36¼ in.

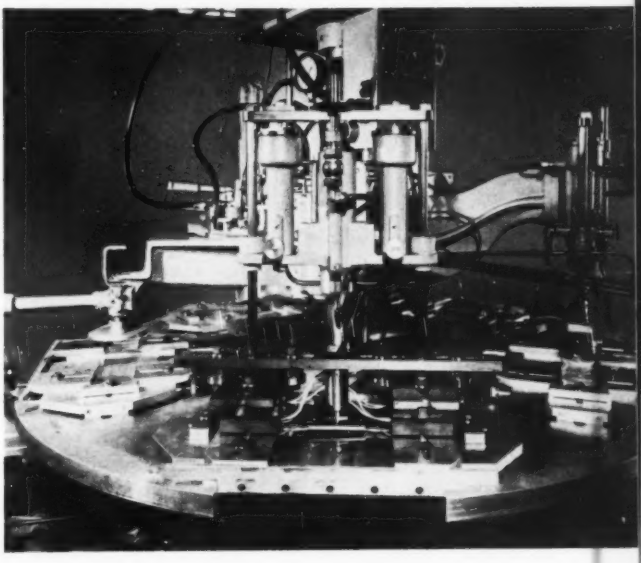
The new machine will be featured in the Bemis Bro. Bag Co. exhibit at this year's AMA packaging show. The company will also exhibit its gravity packer and closer unit, recently introduced, which includes a newly designed bag holder, bag settling mechanism and sewing machine drives.

Transparent box maker for roll form stock

A new, popular-priced, automatic machine to manufacture rigid transparent acetate boxes in a wide range of sizes from roll stock has been developed and is produced by High Production Machine Co., Inc., Philadelphia, Pa.

Designed to meet box manufacturers' needs for equipment to produce uniform transparent boxes without material waste or expensive hand finishing, this new unit employs high-frequency heat, compressed air and vacuum to perform the different forming and sealing operations.

The machine, which is named "Vu-matic," will handle acetate in either sheet or roll form. When rolls are used, the speed of the feeding mechanism is controlled automatically by the size of the box being made. Maximum and minimum dimensions given by the company are: 6 by 10 by 2 in. or 4 by 8 by 3 in. and ¾ by 4 by ½ in. respectively. The roll of stock is sheeted and cornered out, and the blanks are creased and corner welded on a turret-mandrel mechanism illustrated on the right. When sheets are used (maximum size 10 by 14 in.) they are hand fed.



NEW MACHINERY

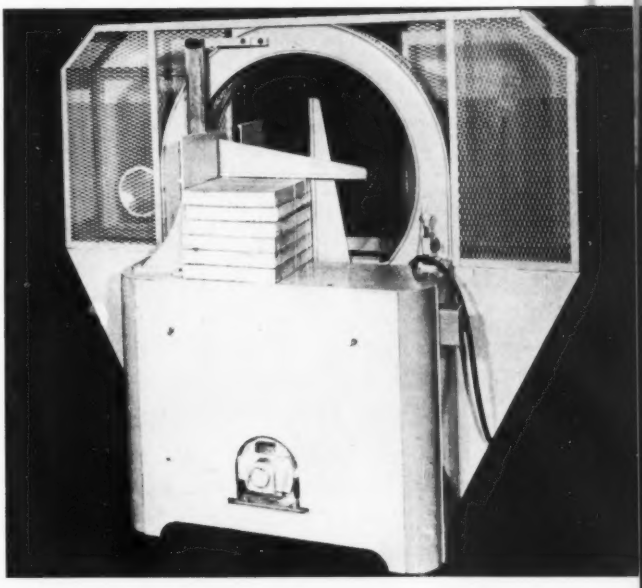
Machines for girth-wrapping cartons or bundles

Automatic volume bundling and reinforcement banding with pressure-sensitive filament tape are performed by two new packing machines. One model (the G.W.) handles bundles within limits of 4 to 20 in. in both height and width and a minimum length of 6 in. Model C. G., for mass production bundling jobs, automatically loads bundles, applies tape and unloads. It is designed for elongated materials.

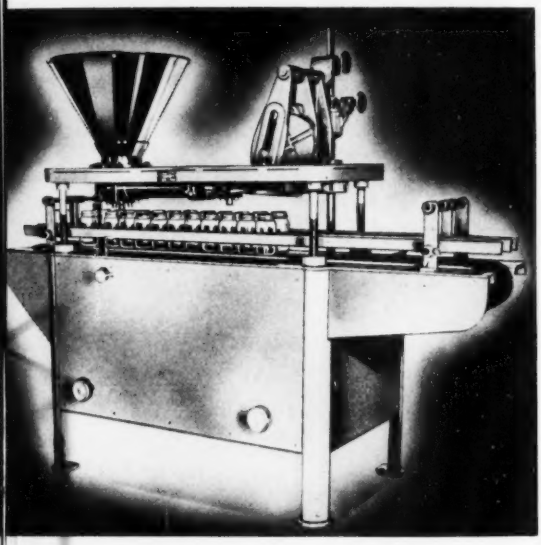
The machines, manufactured by the Guide Co., Canfield, Ohio, both require a single operator and were developed for faster and more economical heavy-duty packaging chores.

The G. W. model is able to apply one or two complete wraps of tape around cartons, bundles of cartons and similar items at a rate of five bundles a minute, it is claimed. It automatically starts the tape, wraps as desired and cuts tape at completion. Space required is 4 by 7 ft. Height is 9 ft.

Model C. G. features a center section which receives, nests and clamps items, and has two adjustable tape-applying heads (at either end of center section) which tape the bundle. Output is as fast as three bundles a minute. Space needed is 18 by 5 ft. Height is 4 ft.



High-speed piston-type two-valve liquid filler



For a filling operation that involves liquids or semi-liquids and calls for production at high speed, the Elgin Mfg. Co., Elgin, Ill., has introduced the new "Speed King" dual-valve piston filler.

This high-speed filler accommodates all sizes of glass or metal containers from 1 oz. to 1 gal. and no change parts are required, according to the manufacturer. The filler's speed range is reported to be 18 to 126 containers a minute, depending on the product and the sizes of the containers.

A new fine fill attachment is said to permit accurate fill setting while the machine is in operation.

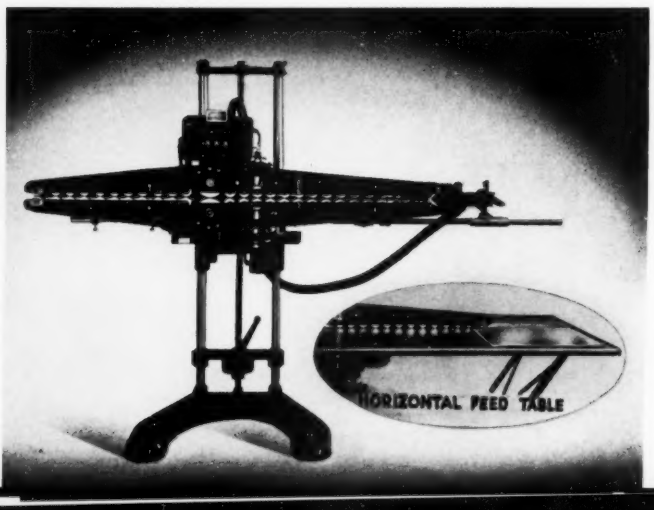
The new filler has been designed to give the utmost ease in cleaning and the highest possible degree of sanitation. All parts are readily accessible to reduce cleaning time to a minimum.

The filler offers these marked improvements: a smooth, variable-speed, continuous conveyor which eliminates the spillage usually caused by a start and stop motion; a new type sanitary valve; large capacity and larger bearings. Another interesting feature is the use of a Teflon seal for easy cleaning and sanitation. Teflon, a thermoplastic resin, has a highly anti-adhesive surface, excellent temperature stability and is chemically inert.

NEW MACHINERY

In-plant rotary sealer for tailor-made bags

Many Government depots and firms handling Government contracts are reported to be installing in-plant packaging fabricating machines to effect economies in the use of material in roll stock form, to permit the "tailoring" of barrier bags, pouches, envelopes and blankets to specific product needs and to eliminate blocking and opening difficulties during packaging.



The high-speed rotary sealing machine, Model DH illustrated, that is manufactured by Amsco Packaging Machinery, Inc., Long Island City, N. Y., is one of this company's machines designed for such all-around use.

The machine is a floor type model with a hand crank adjustable head. It is supplied with a 110-volt AC, 60-cycle motor, feed platform, rubberized V-belt carrier section, 16-in. open-top, double-element preheater with dial thermostat controls in enclosed housing. The double height rubberized V-belt compression section is equipped with means for adjusting and synchronizing the speed of the sealing rollers in relation to the speed of the carrier. Standard sealing speed is said to be 230 lineal inches per minute. The machine makes a standard 1-in.-wide seal, but the unit can be ordered with other width sealing rollers and for other speeds.

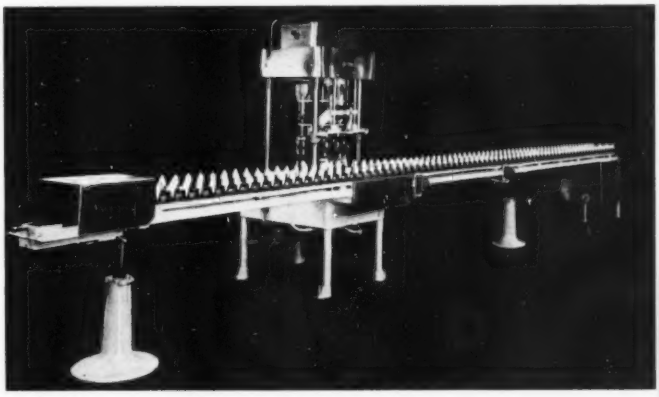
Filler and conveyor for odd-shaped containers

Recognizing the problem of filling odd-shaped containers that cannot be carried on a conventional type conveyor, the MRM Co., Inc., Brooklyn, N. Y., has developed a special conveyor and rotary filler to lick this problem.

In each machine, the conveyor is equipped with specially designed adaptors, spaced over its entire length, which hold individual containers firmly in place not only during the filling operation but during such other operations as capping, insertion of plugs, code dating, etc., according to the company.

The fully automatic, 12-spout rotary filler shown in the illustration is a gravity-fill type with specially designed filling nozzles which incorporate a centering device that grips the container prior to filling. This device, it is claimed, assures accuracy in giving an exact fill.

The new machines are available with conveyors of any length, depending upon the number of operations required after filling. In regard to speed of fill, the company reports one packager of spray deodorants in polyethylene containers operates the filler at 175 units per minute, but fillers with speeds up to 350 per minute can be supplied.



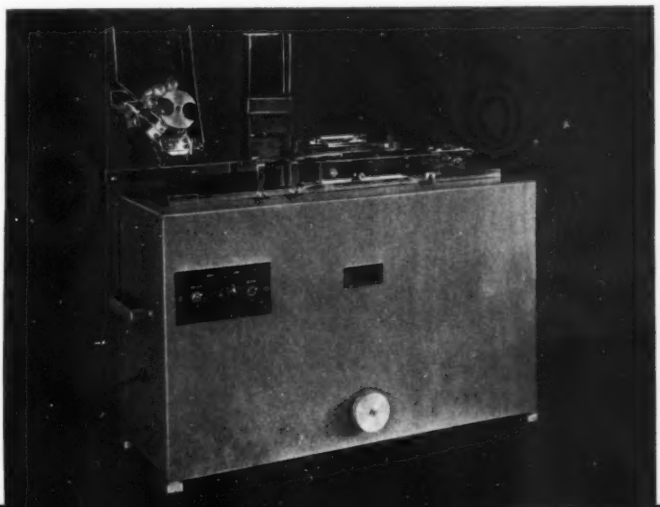
NEW MACHINERY

Portable labeler and coder for ampoules

A new type of portable, automatic labeling machine for ampoules and vials that has been used successfully for more than a year by one of the large pharmaceutical houses is now being made available to other packagers by the manufacturer, the Potdevin Machine Co., Teterboro, N. J.

This machine, which weighs 45 lbs. and measures 26 in. long, 20 in. high and 10 in. wide, labels and codes vials or ampoules of one size only. Models are available to handle 1-, 2-, 3-, 5- and 10-cc. size containers. Production data from the user of the five test models indicate that the labeler can apply more labels in one hour than it is possible to do in one day when hand operations are used, the company reports. One operator at a single machine is able to label up to 46 vials per minute, it is said.

The unit uses thermoplastic adhesive which is kept at the proper degree of tackiness by a thermostatically controlled heater. This feature not only increases the operating efficiency of the labeler by eliminating the usual down-time for adhesive clean-up, but it also permits the use of less expensive, uncoated stock labels. A magazine feed is used for the labels. A hopper feed is provided for the containers which are carried through the machine automatically.



Glued-joint shippers

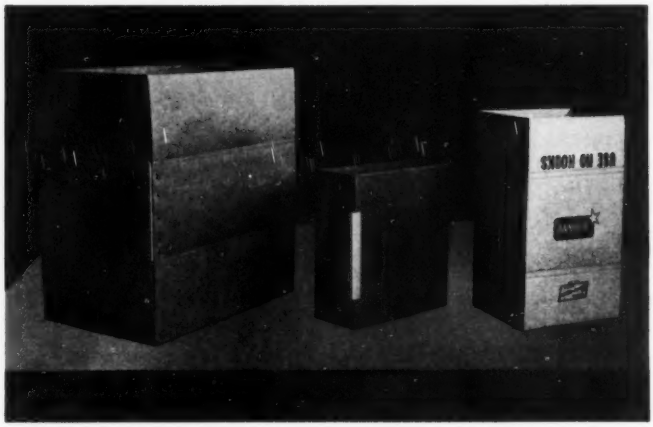
WILL THEIR INDICATED ADVANTAGES FOR CONTAINER MANUFACTURERS BE PASSED ALONG TO USERS? DOES PERFORMANCE MEASURE UP?

The growing interest of various shipping-container manufacturers in boxes made with glued-lap manufacturer's joints is certain to raise numerous questions on the part of all packagers. Significant cost economies for both manufacturers and users and improved container performance may stem from the new development, though some of the final answers will not be forthcoming until a large quantity of glued-joint boxes has been in use for periods sufficiently long to provide reliable data.

There are numerous indications in the shipping-container industry right now that the glued manufacturer's joint will be more widely adopted, but the user of corrugated boxes, sooner or later, will have to make his own evaluation of the advantages and limitations—both known and potential—of the glued joint.

The over-all impression is that glue produces a strong, effective joint that in some initial tests has proved equal or superior to stitched or taped joints. The glued joint offers some potential for increased manufacturing speeds and ease of manufacturing. The resulting economies if passed along to users, as the force of competition would seem to dictate, could mean lower costs for containers. The glued joint is said to be especially well suited to the making of small containers.

As for limitations, boxes with glued joints have not been used long enough to provide answers as to how the joints will stand up in long-term storage and use, nor has it been determined yet what will happen in actual shipment where rough handling and atmospheric extremes are involved. Moreover, both the stitched and the taped joints are perfectly satisfactory in performance in their many respective applications. Even if the glued joint meets every reasonable expectation on the part of its advocates, it must have price or some other obvious advantage to fight for popular acceptance, because the other types of joints have well-established performance records.



GLUED-LAP JOINT, illustrated at right, is shown in comparison with the older stitch-lap joint and the taped joint. The new glued joint has a strong potential for economy for the users of corrugated boxes.

Features of various joints

At this point it may be well to define just what the industry means by the terms "manufacturer's joint." In the fabrication of a shipping container, the flat blank is brought together and joined to form a flattened tube shape, in which shape the box is usually supplied to the user. This is the last operation in manufacture. The manufacturer's joint should not be confused with the "seam," which is the junction point of the top and bottom outer flaps after they are brought together and sealed during the packaging operation.

When fibre shipping boxes first began to be used, the joint was made with gummed tape in the case of corrugated board, whereas the solid-fibre joint was made with metal stitches. If gummed tape is used, the joint simply consists of butted edges; but when the joint is stitched, an overlap is required on one panel. This is usually referred to as the "stitch lap."

Some years ago it was found possible to make stitched joints on corrugated boxes and this was particularly practicable after the development of "B" flute board. Certain adjustments on the stitching machine enabled manufacturers to clinch the stitch properly and yet avoid tearing the liners of the corrugated board.

The new glued joints are formed by applying an adhesive to an overlap similar to the traditional stitch lap, which may be bonded either to the inside or outside of the opposing edge, depending on the versatility of the machine model used. While this technique might appear to be a radical departure from the other methods, it can be observed that the method has been used long and successfully by the folding-carton manufacturers, who run folding cartons through a

gluing machine at phenomenally high speed, using a "glue lap" extension on one panel. Of course, the performance requirements of folding cartons are not nearly so severe as those for shipping containers, but nevertheless the basic manufacturing principles are well established.

Development of glued joint

Some years ago, a few corrugated-box manufacturers experimented with the possibility of running small corrugated boxes through folding-box gluing machines. The results were good and application was made to the Freight Classification Committee for inclusion of the glued-lap type of joint in Rule 41, which is the fibreboard boxmaker's "bible" of minimum requirements to meet railroad regulations. This was done some time prior to Dec. 30, 1949, as evidenced by the fact that Consolidated Freight Classification No. 19, issued Dec. 30, 1949, contains the following little-known paragraph under Section 11 (d) of Rule 41:

"The sides of (corrugated) box forming joint must lap not less than 1½ in. and be firmly glued throughout the entire area of contact with a glue or adhesive which cannot be dissolved in water after the film application has dried."

C. F. C. No. 20, which became effective Oct. 15, 1951, contains this same paragraph. Docket No. 147, which came up for hearing last November, contained a proposal that the width of the glue lap on corrugated boxes be reduced from 1½ to 1¼ in. The unofficial report is that this proposal has been recommended for approval and such approval will probably be officially published some time this month and should then be immediately effective. Thus, the width of the glue lap will be the same as that required for the stitch lap. For many years Section 11 required that the stitch lap on corrugated and solid-fibre boxes be 1½ in., but several years ago this was reduced to 1¼ in., since it was shown that this was an ample width for stitching.

The reduction of the glue lap to a 1¼-in. width has an important bearing on the economy of containers made with this type of joint, because it puts glued joints on an equal footing with stitched joints insofar as board material required for the overlap is concerned.

As far as the stitch joint and the tape joint are concerned, it appears that speed and economy of manufacture are about at a standoff. Stitched joints are cheaper in regard to materials (wire vs. tape), but demand the overlap which takes more board. This small amount of board represents a huge figure when totaled as a percentage of a year's production or use.

The glued joint eliminates the cost of staples—and glue is cheaper than staples. Therefore, the glued joint should have a slight edge in economics.

The present interest in glued corrugated-box joints developed right after the start of the Korean war, when both joining tape and stitching wire became scarce. At first the experiments were made on ordinary folding-box gluing machines, but later the manufacturers of corrugated-box machinery were impelled to look into the subject and several makes of corrugated-box machines are now equipped with necessary attachments for the glued joint.

Another reason for the popularity of glued joints is the fact that very small corrugated boxes are difficult or impossible to stitch without damage to the containers and yet they can be made successfully at high speed on folding-box gluing machines. Military packaging requires many of these smaller corrugated boxes and the Quartermaster Corps quickly gave its consent to a trial of the method.

The Korean incident also created a tremendous increase in the production of V and W weatherproof-type boxes. Many of the inner W boxes are very small. These containers are covered by JAN-P-108, which states under Par. D-2a that all joints must be stitched—on a 1½-in. stitch lap—no tape, no glue. JAN-P-108 refers to Government overseas shipments, whereas Government domestic corrugated boxes are covered by LLL-B-631c, which permits the joint to be made either with a spliced glued joint, or taped, or stitched with a 1¼-in. stitch lap. Neither of these specs permits an overlap glued joint.

Several months ago, the Connelly Container Co. of Philadelphia received an order from the Quartermaster for several million small W6c corrugated containers and asked for and received permission to glue these with a waterproof-type glue. QM, reportedly, found no fault with these

WATERPROOF ADHESIVE applied to the joint flap (arrow) assures strong continuous bond along the full length of the joint. The adhesive is applied by a built-in attachment (circle) on this folding-box machine, which can also be used for the application of tape for taped joints.



PHOTO COURTESY S & S CORRUGATED PAPER MACHINERY CO.

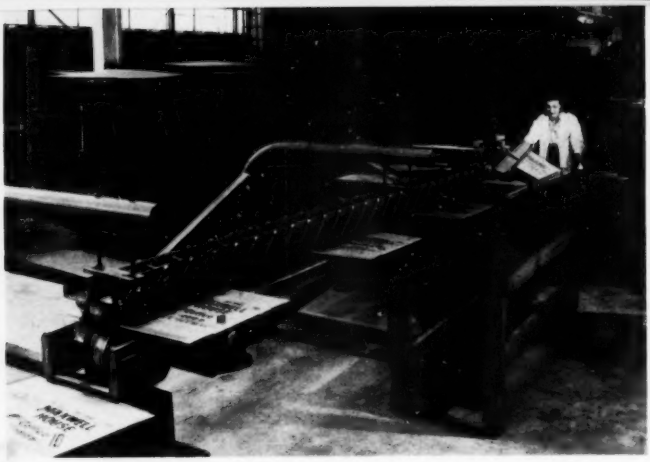


PHOTO COURTESY SAMUEL M. LANGSTON CO.

SEMI-AUTOMATIC MACHINE shown producing glued joints on corrugated boxes. Ease and speed of manufacture have created widespread interest in glued joint, now admitted by Freight Classification, Rule 41.

boxes. They were joined on a converted folding-box gluing machine.

At present, glued joints may be used only in negotiated military contracts where specific permission is asked for and granted. However, in view of the Quartermaster Corps' interest in the potential merits of the glued joint, tests have been conducted by a private research laboratory and in the future a decision regarding specified use may be forthcoming.

The Weatherproof Fibre Box Group, Washington, D.C., has, for example, conducted a series of laboratory tests on W6c boxes.

Superior adhesive used

It will be noted that Rule 41 of the Freight Classification calls for waterproof glue. This in itself assures an important characteristic in regard to protecting the joint against the hazards of moisture. One of the popular types of glue now used is latex based.[1] Another adhesive company[2] has two synthetic resin adhesives suitable for forming glued joints, and a third company[3] is completing experiments and field tests in developing a synthetic resin especially designed for the glued joint.

The adhesives now used are reported to have excellent characteristics in general, but actually little is known of the effect of age and atmospheric extremes on the glued joint. The final answer will not come from the testing laboratory, either, but instead will depend on the results of actual use. Nevertheless, the glued joint has shown up well in such tests as have been conducted to date and adhesive manufacturers are confident that the right adhesives, properly applied, will assure a non-fail joint.

One hazard to be looked out for is the fact that the unprotected outer edge of the container joint may start to peel so that, in an extreme case, only two inner layers of the container board bonded by adhesive would constitute the joint. The taped-joint edge is protected by tape and where the stitched joint is used, staples clasp all six layers of container board—facing, flute and facing in each of the two board sections that make the joint.

It should be noted that the adhesive in the glued joint is applied in a continuous band along the length of the joint. What's more, the width of the bonded area is more than an inch wide, so that considerable peeling would have to take place to reduce seriously the effectiveness of the joint. However, peeling if it were to occur frequently would nevertheless be a problem, since it would expose the fluting, weaken the container and mar its appearance. The frequency of the peeling, it is thought, would be related basically to faulty container manufacture rather than to construction of the joint.

Another problem in connection with the glued joint might be the fact that there would be no evidence if the joint began to fail, since the adhesive bond is hidden by the joint lap, whereas stitched and taped joints are visible and incipient joint failure is noticeable on examination. Here again, this potential limitation is not thought to be serious, for the glued joint has already proved itself in initial tests and visible inspection is not an important factor in preventing joint failure once a container is in use.

Methods of manufacture

During the period that followed the outbreak of hostilities in Korea, a number of box manufacturers[4] experimented with glued-lap joints and have undertaken various steps toward furthering the development. Numerous machinery manufacturers are now adding glue-joint attachments to their corrugated-box manufacturing equipment, in both automatic and semi-automatic models.

In general, the glued lap is manufactured as follows: The box blank is carried forward by the feeding mechanism of the box-folding machine and a pair of guide bars guide the glue flap to the applicator wheel, which deposits the adhesive on the board immediately prior to the folding of the box. The amount of adhesive required is determined by a number of factors, including operating speed, the absorbency of the board and the amount of compression in the conveyor. There must be a sufficient deposit of adhesive to permit offset transfer of the glue to the opposite side of container joint when the glued flap is brought into contact with it.

Machine operation is a critical factor in the forming of a glued joint that will prove satisfactory. Naturally the manufacturer must bear the major concern and responsibility for proper joining, but it is also a problem for the user, in that joints which have not been formed correctly may fail. Perhaps the most important element in forming the joint, aside from the choice of adhesive and correct application, is compression and the allowance of sufficient time for the bond to set. Containers are relatively bulky and are subjected to a certain amount of strain as they pass through the machine. This adds to the problem of obtaining an adequate and well-set bond where due care is not taken. Excessive amounts of adhesive result in squeeze-out and this, also, may impair formation of the bond.

(*This article continued on page 408*)

[1] "Darex," produced by Dewey & Almy Chemical Co.
[2] National Adhesives Co.
[3] Union Paste Co.

[4] Among them: Atlanta Paper Co., Gibraltar Corrugated Paper Co., Industrial Container Corp., Kieckhefer Container Co., Robert Gair Co., Inc.

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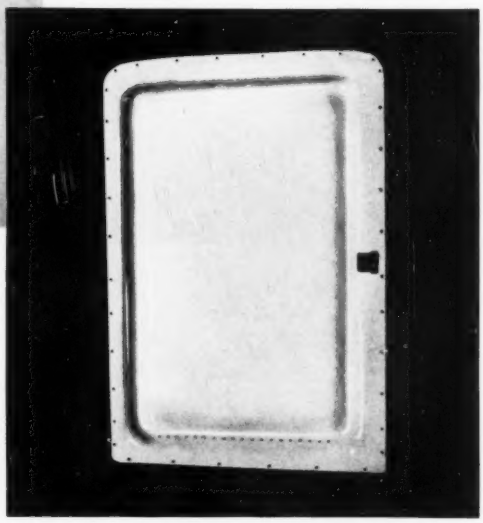


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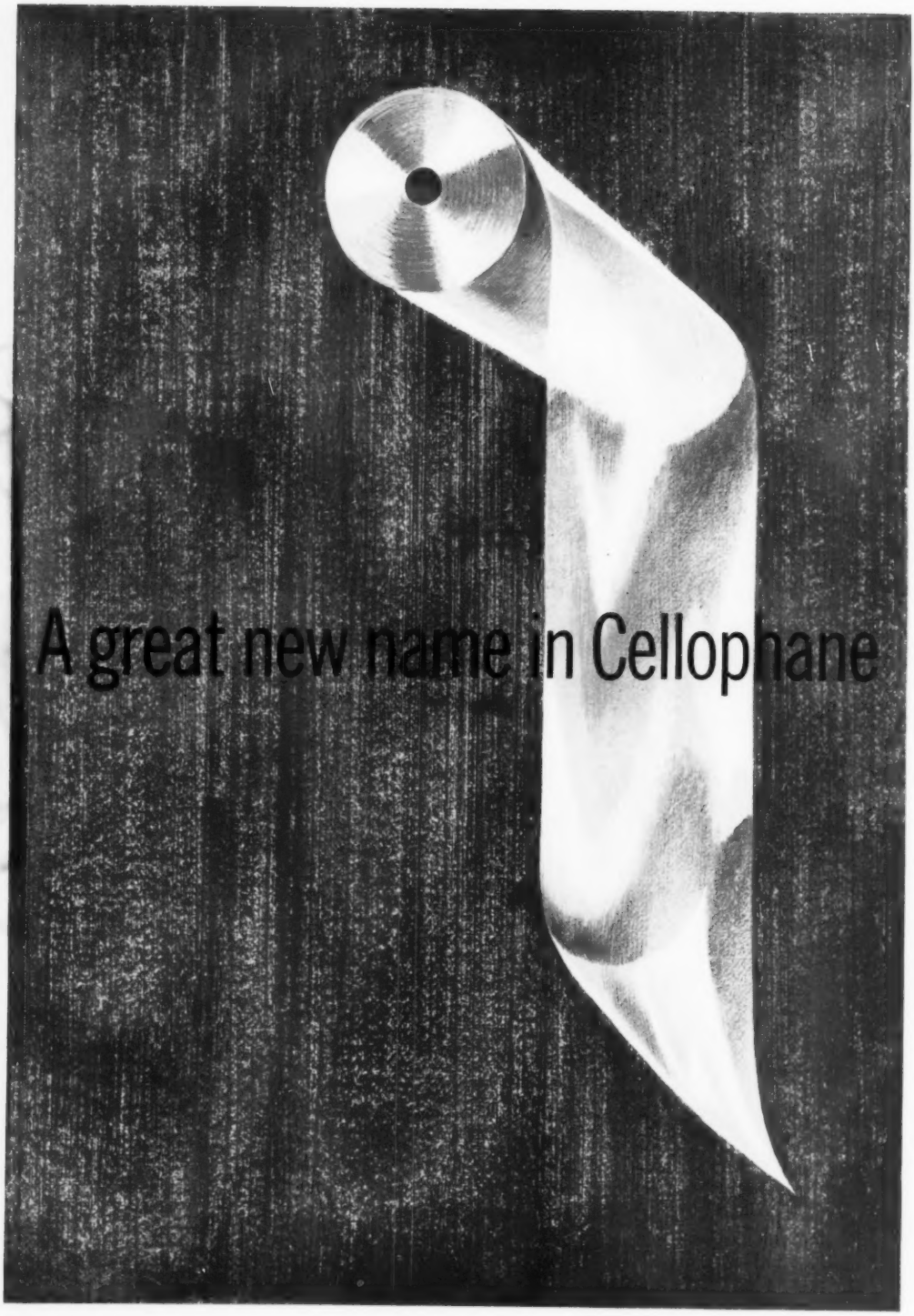

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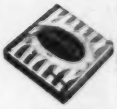
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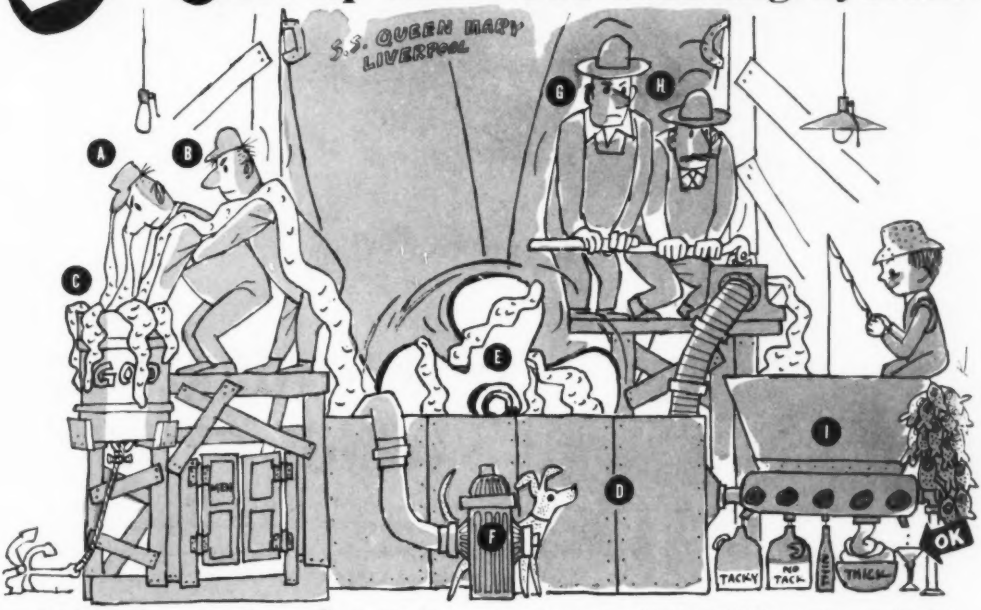
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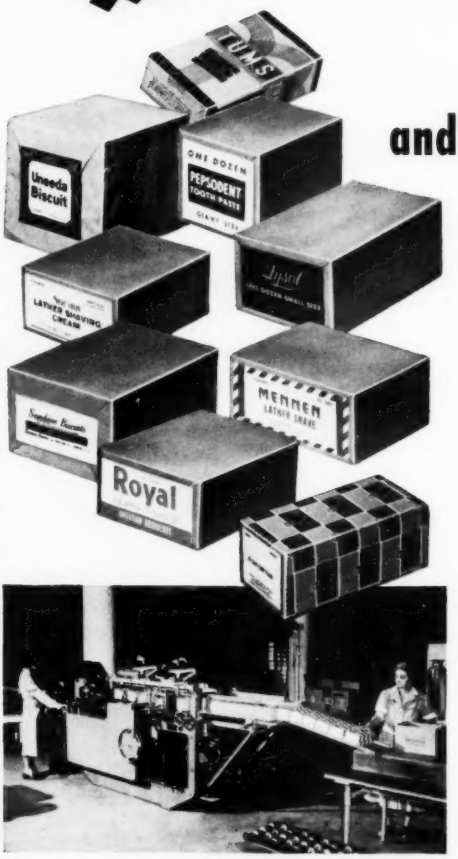
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By H. M. Farnham*, W. A. Herbst* and H. F. Hitchcox*

This paper presents an improved yet simple method for evaluating the blocking point of paraffin waxes. It embodies placing a folded, waxed paper strip on a metal plate having a fixed temperature gradient over its length. After a 7-hr. test period, the strip is removed and the point at which blocking begins is observed. Normally a sharp demarcation exists between the blocked and non-blocked areas. The distance along the strip to this point is converted to the blocking temperature by means of a temperature vs. length curve for the plate.

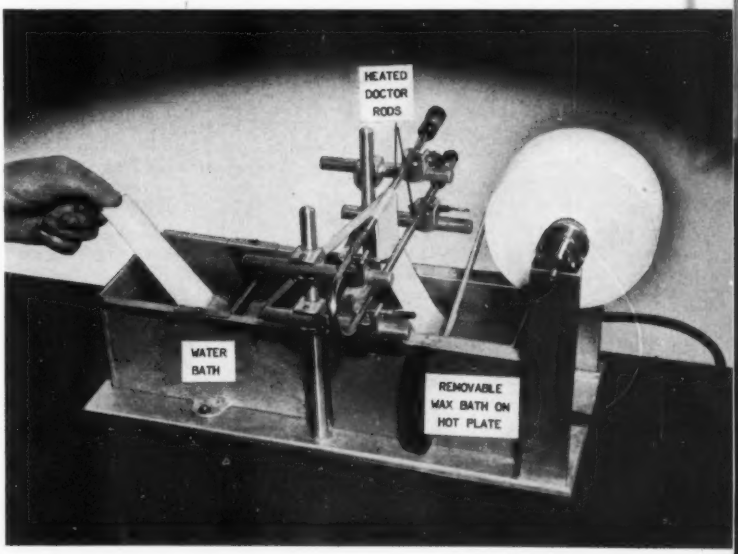
This method has advantages over other known blocking tests in that the blocking points of a dozen or so waxes may be determined simultaneously on one blocking apparatus by a single test with only one waxed strip for each wax. Inspection time is reduced to a minimum since only one waxed strip is prepared and evaluated for each wax tested. Moreover, the reproducibility is within 2 deg. F. in most cases.

Discussion

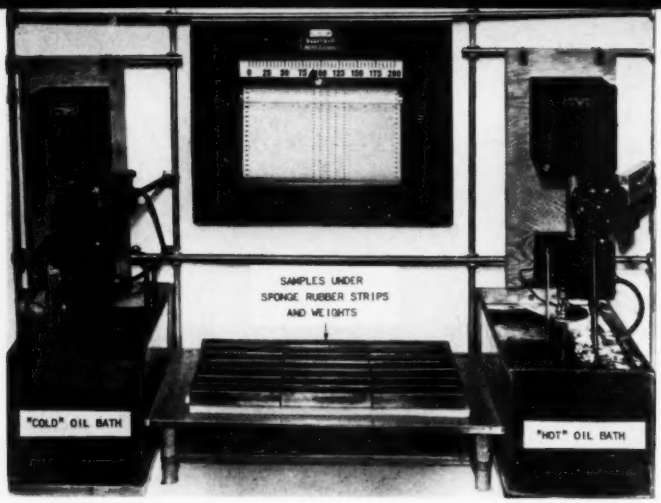
About 80% of the refined paraffin wax produced in this country is used to coat paper. Bread wrappers, cereal liners and frozen-food wraps are but a few examples of the many waxed-paper products that are so familiar in everyday life. To maintain good performance and appearance of the coated papers as well as trouble-free operation of the various wrapping machines, the wax surfaces must not block; that is, mar or stick together when in contact at temperatures which may exist during storage or use. The ability of a wax film to remain unchanged under these conditions is related to its blocking point, which may be defined as the lowest temperature at which two wax surfaces in mutual contact will stick together sufficiently to injure the surfaces permanently and/or prevent easy separation. Thus, blocking point is a major quality criterion for evaluating coating-grade waxes.

Paper converters have long recognized the importance of high-blocking-point waxes and in the past have regarded melting point as the principal criterion of blocking quality. For

1. HAND WAXING device for the preparation of waxed strips for use in test.



* Esso Laboratories, Research Division, Standard Oil Development Co., Linden, N. J.



2. BLOCKING-PLATE apparatus and recorder showing samples being tested.

these reasons, only the 130 deg. F. and higher-melting-point waxes are generally specified to coat wrappers which are used, stored or transported at temperatures as high as 90-100 deg. F. The higher-melting-point grades are purchased where even higher blocking resistance is desired. As a result of increased emphasis on blocking resistance during the past few years, many converters and wax refiners adopted hardness or penetration measurements as a second means of controlling or evaluating blocking quality. Within our experience, this has not been satisfactory, as is illustrated by the following data for commercial paraffin waxes:

ASTM melting point, °F.	Abraham hardness at 100°F. $\sqrt[3]{\text{gms./sq. cm.}}$	Blocking point, °F.
130/132	16	92
130/132	16	101
132/134	31	101
135/137	25	107

These hardness values, which are accurate to ±0.5 units, were measured near the blocking temperature which should be ideal for hardness-blocking correlations. Therefore, this lack of correlation between hardness and blocking demonstrated that a direct measure of blocking point was necessary.

The common blocking-point methods employed by paper converters and wax refiners fall into two groups, e.g., the (1) conventional and (2) mercury methods. The so-called "conventional" test has been largely used as a research tool and varies in numerous details from one laboratory to another. In general, however, two strips of papers waxed on laboratory or plant machines are brought face-to-face between two unwaxed papers, placed on a smooth metal plate and weighted with a metal bar. This assembly is placed in a constant-temperature oven at a temperature estimated to be close to the blocking point. Other sample assemblies are similarly tested at 5 deg. F. temperature increments above and below the selected test temperature to bracket the blocking point.

The mercury blocking-point test[1] is relatively new and is under consideration as a TAPPI-ASTM standard procedure. It has advantages over the conventional methods due to its simplicity of sample preparation and of rating the blocked condition. For this test, a pair of hand-dipped waxed strips is placed face-to-face in a cellophane envelope. This is suspended vertically in a jar of mercury which acts as a heat-transfer and pressurizing medium and is put in an oven or constant-temperature bath at the estimated blocking temperature. Other strips coated with the same wax are tested in a similar manner at 5 deg. F. temperature increments to bracket the blocking point.

With either method, the samples are held at the elevated temperatures for a definite period (usually 16-20 hrs.) and then are cooled to 73 deg. F. The strips are pulled apart carefully and examined for surface mar to find two pairs of strips tested at successive test temperatures (e.g., 100 and 105 deg. F.), one pair of which shows little or no mar and the second pair showing considerable or complete mar. The lowest temperature at which considerable marring occurs is the blocking temperature.

These tests were felt to have basic disadvantages which could not be corrected by procedure or equipment changes, namely:

1. The rating is necessarily subjective and depends on experience to determine the correct blocking point. Since the strips tested at the various temperatures are rated separately, even an experienced inspector may be misled when lighting and angle of viewing vary from test to test.

2. Both tests require a series of ovens or baths since samples must be tested at two or more temperature levels (5 deg. F. apart). Also, the preparation and evaluation of multiple samples for a single wax is too time-consuming for control-test purposes.

3. The potential health hazard associated with the use of mercury requires special safety precautions.

S.O.D.[2] blocking method

In view of the shortcomings of the existing methods, other means of measuring blocking points were considered. The ideal method is one in which blocking points are determined accurately in a single operation with one sample. In addition, a short, simple method for preparing the waxed strips is highly desirable. With these goals in mind, the present S.O.D. method was developed. It employs a metal plate having an imposed temperature gradient over its length to expose waxed paper strips to a continuous range of elevated temperatures. After this conditioning period, the strips are cooled, carefully separated and examined to observe the point at which the surfaces first appear blocked. The distance from this point to the end of a strip is converted to blocking temperature using a temperature calibration curve for the plate. A rapid procedure for preparing hand-waxed strips was also developed. However, machine-waxed papers may be employed if desired.

This new blocking method has several advantages. The blocking points of a dozen or so waxes can be determined simultaneously on one apparatus by a single test with only one waxed strip for each wax. Moreover,

[1] M. W. Kane, MODERN PACKAGING, Vol. 25, No. 3, 118, 1951.

[2] Abbreviation for the Standard Oil Development Co.

the blocking points are much more distinct and can be easily ascertained with little experience. This is possible because each strip covers all gradations from no blocking to complete blocking with a sharp demarcation at the beginning of the blocked area. Another important feature is that the continuous temperature scale permits determining the blocking point to 1 deg. F. Duplicate tests with properly coated strips will check well depending only on the constancy of the temperature gradient. In addition, the handling time per wax is reduced both by use of the rapid hand-waxing technique (as opposed to machine coating) and by the fact that only one specimen need be prepared and evaluated. All these factors favor its use as a quality-control test.

TABLE I—BLOCKING POINTS OF PARAFFIN WAXES BY VARIOUS METHODS

Type of blocking test:	*Blocking point, °F.*					
	S.O.D. method				*Conventional method*	*Mercury method*
Type of waxed papers:	*Machine coated*		*Hand coated*		*Machine coated*	*Hand dipped*
Test period hrs.	16	7	16	7	16	16
Wax coating, lbs./ream	12-14		20-30		12-14	60-140
ASTM melting-point grade						
130°F.	94	95	–	–	95	95
	94	96	95	–	95	100
	–	–	103	100	100	–
	–	–	98	97	95	–
135°F.	107	107	–	–	110	–
	–	–	111	109	110	–
	107	107	110	–	110	110
140°F.	115	117	116	–	115	120
146°F.	122	124	122	–	120	–
150°F.	–	–	134	133	135	–

Apparatus

The apparatus for the S.O.D. blocking test consists of a blocking-plate assembly and a means of measuring the plate temperatures. In addition, a suitable hand-waxing device for obtaining waxed paper strips in the laboratory is described. A picture of this unit is shown in Fig. 1. It has an unroll stand, a removable wax bath, a variable-temperature hotplate, two heated wire-wound doctor rods and a chill water bath. With this device, smooth, uniform and glossy test strips that are satisfactory for paraffin-wax blocking tests are easily made.

A picture of the blocking-point apparatus is shown in Fig. 2. This consists of an aluminum plate (about 20 by 12 by ¾ in.) between "hot" and "cold" constant-temperature baths to impose the desired temperature gradient on the plate. An aluminum plate was chosen because it was non-corrosive and has good heat conductivity, which insures an even temperature across its width. Both 7- and 12-in.-wide plates tested in our laboratory gave good performance in this respect.

Plate temperatures are maintained by immersing the hot and cold ends in constant-temperature baths containing white oil held at about 160 and 75 deg. F., respectively. This type of control was chosen instead of strip heaters and integral water coolers, which were also tried, on the basis of a higher degree of temperature control that is less susceptible to variations in atmospheric and seasonal conditions.

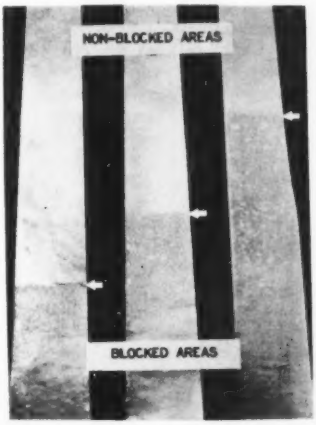
However, it is recommended that the apparatus be used in a room held at 73 deg. F. and 50% relative humidity. This will maintain the moisture content of the paper as specified by TAPPI standard procedure. In addition, the constant ambient temperature provides further assurance that the metal-plate temperatures will remain constant during the test. Temperature distribution over the working area of the plate is measured by thermocouples imbedded just beneath the test surface in holes drilled from the bottom side. In the initial work, three longitudinal rows of thermocouples were used. Sets of 10 thermocouples were located 1 in. from each edge and the third set was positioned along the axis. Measurements made at these positions indicated little or no temperature differences across the width of the plates, so that only the center thermocouples are needed.

All temperatures were measured continuously on an electronic temperature recorder. Aside from an initial temperature drop due to adding the cold sample assemblies, the plate temperatures remain unchanged during a test. For this reason, manual potentiometers could be employed for temperature measurements if desired.

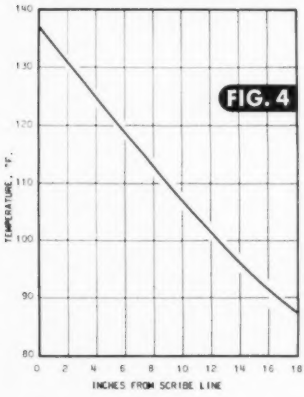
Test strips for the S.O.D. method are prepared on the previously described hand-coating device. Two-inch-wide strips of 25 lb./ream bread-wrap paper are coated at about ½ to 1 ft./sec. while keeping the wax bath and doctor rods at about 175 deg. F. and the water bath at 40-55 deg. F. A 4-ft. length of smooth, glossy waxed paper is taken for each sample. Doctor-wire size and paper tension are preset to give coatings of 20-30 lbs. wax/ream, although coatings ranging from 12-40 lbs./ream have been used satisfactorily. The waxed strip is folded end to end and is cut 17½ in. from the fold. Using an 18-in. paper-trimming board, an approximately 1-in.-width center slice is cut from the folded strip.

The above specimen is inserted between two unwaxed paper strips (1 by 18 in.) and placed lengthwise on the blocking plate with the folded end on an inscribed line at the "hot" end. Other samples may be placed in a like manner, keeping a symmetrical distribution on the plate. Each of the

3. APPEARANCE of the test strips, illustrating the sharpness of the blocking points. The arrows indicate the blocking points.



TYPICAL CALIBRATION CURVE FOR S.O.D. BLOCKING-POINT APPARATUS



stacks is then covered by a soft sponge rubber strip (1¾ by 18 by ⅛ in.) and weighted with 1-in. square steel bars. To increase the capacity of the plate, two waxed paper specimens may be tested under one set of weights by placing them between alternate unwaxed strips. Testing more than two specimens under the same set of weights is not recommended.

After exposure on the blocking plate for 7 hrs. (16 hrs. may also be used with equal results), the waxed strips are removed and cooled 10-15 min. The open ends are then carefully pulled apart to observe the inner surface. The appearance of portions of a few sample strips is shown in Fig. 3, demonstrating the sharp demarcation between the blocked and not blocked areas. The distance to the beginning of the area of complete blocking is measured from either end of the strip. This distance is converted to the blocking temperature by means of a calibration curve relating temperature to distance along the plate. The calibration curve for the blocking-point plate used in the present work is shown in Fig. 4.

Test results

Typical blocking-point data are presented in Table I for paraffin waxes rated by the S.O.D., conventional and mercury methods. The blocking results by the S.O.D. method include 7- and 16-hr. tests on papers coated on a Mayer laboratory coating machine and on the hand waxer discussed previously. These data indicate that the blocking points of paraffin waxes can be determined equally well with hand- or machine-coated papers and that the test period can be shortened to 7 hrs. without any sacrifice in accuracy of results.

TABLE II—REPEATABILITY AND REPRODUCIBILITY OF THE S.O.D. BLOCKING-POINT TEST

		S.O.D. blocking points, °F.							
Laboratory:				*I*			*II*		
Test (by same operator):		*1*	*2*	*3*	*4*	*Ave.*	*1*	*2*	*Ave.*
ASTM melting-point grade	*Sample*								
130°F.	A	97	98	98	99	98	100	98	99
	B	99	100	100	–	100	99	–	99
	C	97	97	96	97	97	96	97	96
	D	98	97	96	97	97	98	99	98
132°F.	E	103	104	105	104	104	105	105	105
	F	101	100	103	100	101	102	–	102
	G	103	101	103	104	103	103	104	103
	H	104	104	104	104	104	103	102	102
135°F.	I	113	113	113	112	113	112	112	112
	J	107	110	108	–	108	108	109	108
	K	111	110	110	111	110	111	111	111
	L	111	111	108	111	110	112	112	112
140°F.	M	117	116	116	116	116	117	115	116
	N	120	120	121	–	120	119	–	119
	O	117	117	117	–	117	117	–	117
	P	115	115	115	115	115	116	116	116
	Q	117	115	116	–	116	117	117	117
146°F.	R	125	125	–	–	125	124	126	125

In general, the S.O.D. blocking points fall at or between the values obtained by the mercury or conventional methods which rate blocking temperatures by 5 deg. F. increments. This shows that the S.O.D. procedure measures blocking in the same sense that current methods do and that it can determine the blocking point within closer limits.

Repeatability and reproducibility data for the S.O.D. blocking test are presented in Table II for two separate laboratories. Laboratory I was maintained at 73 deg. F. and 50% relative humidity, whereas Laboratory II was not air conditioned, but probably did not reach highly humid conditions. The greatest difference of blocking-point values obtained by the same operator on a given wax was 3 deg. F., but the repeatability for any two tests was within 2 deg. F. in 92% and 100% of the cases for Laboratories I and II, respectively. In general, it appears that any single determination will fall within about 1 deg. F. of the average results by the same operator in 95% or more of the cases.

The reproducibility between the average values for each laboratory was generally 1 deg. F., with a maximum difference of 2 deg. F. A comparison of each value from one laboratory with each determination on the same wax at the other laboratory shows that, on a one-test basis, the inter-laboratory agreement is 2 deg. F. or better in 96% of the cases. Cooperative TAPPI-ASTM evaluations with the mercury method, on the other hand, have shown individual laboratories differed by 5-10 deg. F.

A tendency has been noted for blocking points to improve with the aging of the coated papers. For consistent results, blocking tests should be carried out within five days of the time that the paper is coated.

This method can also be employed for evaluating the blocking or staining points of other thermoplastic materials in sheet or applied to paper.

Acknowledgement

The authors wish to thank the Standard Oil Development Co. for permission to publish this article. We also acknowledge the assistance of our various associates who have contributed to the development of the apparatus and method, and particularly to Mr. H. L. Thwaites in developing the test and that of Mr. A. C. Amoroso for cooperating in the inter-laboratory comparisons.

Electronic shock-tester

IT SENSES, MEASURES AND RECORDS THE PRECISE DEGREE OF SHOCK AND VIBRATION WITHIN A CONTAINER UNDER TEST.

By J. A. Sargeant*

The Packaging Development Branch of the Engineer Research & Development Laboratories, Fort Belvoir, Va., has been interested for some time in establishing scientific means of analyzing packaging methods and container design. The comparative-type testing techniques employed in most packaging and container-testing laboratories have been found to be largely dependent upon personal evaluation by the technician. Because of this limitation, the packaging engineer has been restricted to using his test equipment only as a facility for submitting his test items to various kinds of abuse which may or may not simulate actual handling conditions. In efforts to improve his package or container design, he supplements this work by "cut and try" methods of developing improved designs. His studies of package or container performance have been in effect limited to comparison of one package or container with another. He has not had the means for actual measurement and analysis of the design or construction of his particular package.



U.S. ARMY PHOTO.

TESTING SET-UP, showing L.A.B. Vibration Table, instrumented container and cabling to electronic shock-test recorder in booth (left).

For some time cognizance has been taken at this laboratory of the need to establish criteria on which completely reliable recommendations can be based for designing packages which will insure delivery in usable condition of as near as possible to 100% of all supplies shipped. Military shipping needs especially require, among other things, utmost economy of space, weight and use of strategic materials. The already complex logistics problems preclude allowance for normal losses generally acceptable to some commercial shippers.

Considerations

In considering the correction of deficiencies and improving the performance of both the packaging and the container, study and thought must be given to the shocks and vibrations encountered in cargo spaces of all types of common carriers, including trucks, railroad freight cars, ships and airplanes. In military packaging we must also consider the severe shocks and unusual conditions of air drop (both free-fall and parachute), glider delivery and amphibious operations.

To insure arrival of the packaged material in usable condition, packaging and packing must perform two functions. The first function is protection of the contents from abrasion, dust, water and possible vandalism during transit and storage. However, in the protection of some kinds of material, this function of the packaging is overshadowed by a second, and much more important, one of preventing shocks experienced in transit from being transmitted to the article and causing damage. Damage in the packaged article can be caused if vibrations of critical frequency are developed. Such critical vibration frequencies are normally the natural frequency of the article, or a function thereof. Damage can also be caused by shock or impact-loading of the article beyond the limits of its strength.

Proper packaging consists of an enclosure which is sturdy enough to resist damage that might result from hazard of shipment and handling. A proper package also includes necessary blocking, bracing, tie-down and cushioning around the contents, to reduce transmitted shock and vibration to a safe level.

Before we attempt to design packaging, or a particular container, we must know something about the magnitude and frequency of the shocks and vibrations which the article,

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INSIDE THE BOOTH, showing the recording chassis (left) and the pulse-width variation magnetic tape interim recorder and the playback.

within its package or container, is able to withstand. One method of obtaining the required data is by theoretic considerations and computations. This method quite often becomes a laborious and costly operation, and in some instances is very impracticable, if not impossible. At least some guesswork is involved and worthwhile results are not always produced.

Another method, the most commonly used, is to test the item on one or more standard laboratory devices, such as an impact tester, vibration tables, free-fall drop or tumbling drums until damage occurs. These procedures, however, without the technician's knowing what is happening to the contents of the trial pack or container during the tests, produce inconclusive and somewhat unreliable evidences of the critical points and causes of failure. In connection with this, it has been found there is no assurance that exact repetition of a particular test will again produce exact repetition of the previous result. Only by quantity testing and study of the resultant averages can these procedures be of much value.

However, scientific and valuable reference data can be obtained when it is possible to use these procedures along with proper or adequate sensing devices to identify, measure and record shocks, vibration, accelerations and stresses at critical points within the package and on the container. We are then no longer dependent upon the technician's personal opinions based only on his observation of performance of the package or container, and quantity tests are not a necessity.

With this kind of reference data to use as a basis for analysis of the pack or container, the packaging engineer has the needed tools for a scientific approach to correction of deficiencies in the pack or container design. He can, with confidence, reduce the packaging and construction of the container to the absolute minimum to maintain sufficient protection for the article being shipped.

Need for scientific means of collecting measurements of shock and vibration, while conducting package and container tests, has long been recognized. Data and records obtained by proper instrumentation add materially to the value of the packaging-engineer's work.

The basic difficulty in obtaining the kind of measurements required during container and package testing has been the lack of suitable instrumentation, or the difficulty in adaption of available shock and vibration measurement devices to container-testing needs.

FINAL RECORDING mechanism, using spark pens and Teledeltos paper. A reading of the charts permits an immediate direct comparison of the conditions at nine different sensing points within the package tested.

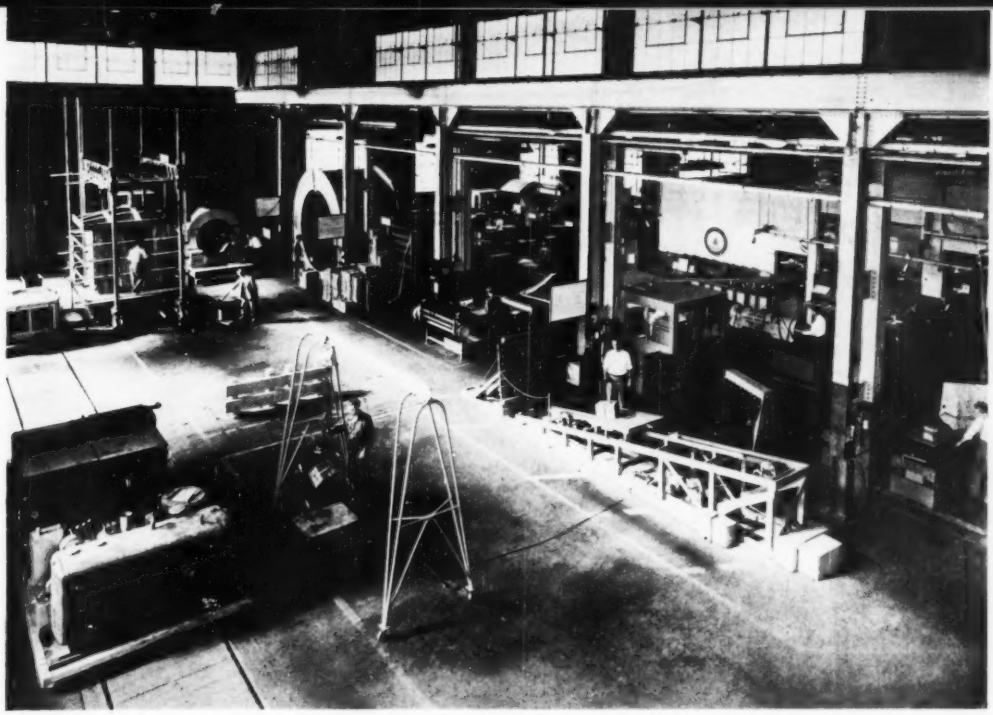


Development

After a thorough study of the problem and consideration of requirements and needs, the ERDL Packaging Development Laboratory assembled specifications and performance requirements for such equipment. The problem was then turned over to Reed Research, Inc., of Washington, D. C., for development and fabrication of suitable sensing, measuring and recording equipment.

The equipment developed by Reed Research, in cooperation with the ERDL Packaging Laboratory, resulted in a shock-and-vibration recording system which incorporates a number of interesting design innovations. The equipment is now being used in practically all ERDL Packaging Laboratory container-testing work.

The equipment permits simultaneous recording from nine separate pick-up points. We are presently using Calidyne vacuum-tube-type accelerometers and Baldwin S-4 strain gauges for sensing devices. These sensing devices can be distributed and placed at as many as nine different locations in or about the package or container. Accurate, simultaneous and continuous measurements of the shock, frequencies and accelerations



OVER-ALL VIEW of facilities at Packaging Development Laboratory, Fort Belvoir, Va. Equipment includes a 100-ton compression tester; 7-ft. and 14-ft. revolving hexagonal drums; Conbur incline-impact tester; free-fall drop tester; pendulum-swing impact tester; three vibration tables with frequency ranges from 0 to 60 CPS; fiberboard-box-making machine; the electronic shock-vibration recording set-up and a 160-cu.-ft. illuminated submersion tank. There are also a complete processing and packaging line, climatic and temperature testing chambers and numerous supporting shop facilities.

occurring at the various pick-up points during the test are sensed and recorded. The frequency response of the recording system extends from two to well beyond 500 cycles per second. Square waves at 200 cycles per second are quite recognizable on playback. Full-scale acceleration can be detected, measured and recorded up to 80 gs.

The resultant data, recorded as a black-line wave form on calibrated white paper, is produced by direct-writing oscillographs, using electric stylii, without need of recourse to slow photographic techniques. An accuracy of $\pm$ 5% is obtained. Reading of this resultant chart provides immediate direct comparison of conditions at the various sensing points. Intelligence obtained by this means permits dependable analysis of performance of even very complex cushioning and suspension systems, such as those required for packaging of heavy, but intricate and delicate, military devices, i.e., guided missiles, torpedoes, aerial photographic equipment, etc.

There are many facets to the problem of developing sound scientific techniques for the packaging engineer. The precise measurement of shocks and vibrations in container testing is only one stage. In a sense, it might be considered that we have put the cart before the horse. We must also know something about the shocks and vibrations which the packaged article will experience during actual shipment and handling. Admittedly, without a knowledge of the shocks and vibrations which the packaged article will experience during transit, it is not practicable to approach confidently the final design, or pass definitely on the acceptability of a given design or container.

This problem, however, is not being overlooked. A major step has been made toward establishing this important criteria through the completion of a report, bringing together all available existing data and information, on ride characteristics of common carriers. This task is now almost completed by the University of Florida under contract with the ERDL Packaging Development Laboratory. We expect to do further work in this field, after careful study of this report, to determine what must be done to obtain accurate, complete and reliable data. It is planned ultimately to assemble, in easy reference form, this data on the shock, vibration and acceleration encountered in railroad cars, trucks, ships and planes.

Data is also being assembled for the ERDL Packaging Development Laboratory by the Battelle Memorial Institute at Columbus, Ohio. This work, a part of our over-all program, is aimed at coordinating information on shock and vibration instrumentation available or adaptable to the packaging-engineer's requirements.

It is felt that this entire program and other present activities of the ERDL Packaging Development Laboratory are contributing a great deal toward establishment of a foundation upon which scientific solutions of packaging and packing problems can be based. We are trying to obtain for the packaging engineer the tools he needs for producing an "engineered package."

Questions & Answers

This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 575 Madison Ave., New York 22, N. Y. Your name or other identification will not appear with any published answer.

Sterilizing polyethylene bottles

QUESTION: We would like to know how to sterilize plastic bottles without the use of heat. We have a problem of putting a product in a polyethylene bottle, the inside of which must be completely sterile. Since we cannot use heat to sterilize the inside of this bottle, we are at a loss to know what to do.

ANSWER: There is no doubt of what would result if you were to attempt to heat a polyethylene bottle for the time and at the temperature necessary to insure sterilization; the bottle would be completely fused. Therefore, methods must be considered that will be effective at a temperature of not more than 180 deg. F., which is the allowable limit of heat such containers will withstand. There are two possible methods, both of which will have to be carefully tested and controlled before the bottles can be put into production with the assurance of complete sterility.

The first method involves the use of solutions to flush the inside of the bottle and which are then drained out, leaving the interior surfaces in a sterile condition. There are many problems in connection with this method because it will be necessary to remove all of the solution by flushing or rinsing with sterile water so that there will be no question about contamination of the product. Then, too, there is the possibility that certain hot sterilizing solutions can attack or be absorbed into the polyethylene.

The second method would involve electrical means or ultra-violet radiation. There has been a great deal of work done in both of these methods of sterilizing and we refer you to the article "Sterilizing With Electrons" in the July, 1951, issue of MODERN PACKAGING. There are many problems in connection with either light or electronic sterilization processes, but they do offer a possibility of achieving the result you desire without the use of heat.

We also suggest that you contact the supplier of your bottles in connection with this problem and that you check with him after you have worked out a method which you think is satisfactory.

Time indicator for coding unit

QUESTION: We are packers of self-raising flour in cartons and cloth bags. Owing to our particular method of mixing, it is not possible for us to put batch numbers on our cartons or bags. We are, however, interested in a machine which will automatically number each carton and bag so that we can determine the time at which each individual package was made in the day's production. Can you aid us in finding such a machine?

ANSWER: There are a number of companies that manufacture code-marking or dating units which can be attached to production lines for coding each package as it is produced. There are various ways of coding each package on the production line, depending upon the type of package and the user's particular equipment. However, none of these coding devices incorporates a time indicator or any other means by which you could correlate your production with time. It is suggested that you contact various manufacturers of coding equipment, tell them of your problem and the kind of machinery and equipment you have, and they will undoubtedly suggest something suitable for your purpose. It would not appear to be too difficult a problem to include the time factor into code dating and such a unit will give you all the information necessary for you to identify each package as it comes off your production line.

Soluble film bags

QUESTION: Our problem involves the making of certain grades of paper. In the process of manufacture, we should like to be able to add small amounts of chemicals to the beater in small bags, have the bags go into a solution and then disperse their contents. It is our plan to have the chemicals packaged and shipped in these bags so that the bags can simply be thrown in the beater and quickly dissolve. Can you suggest materials and methods of making such small bags?

ANSWER: There are several resins which can be made into films that will dissolve in water under certain conditions. These resins are polyvinyl alcohol, methyl and several other cellulose derivatives. Some of these resins are available in film form and others have only been made experimentally. There is no reason why a thin film made from any of these materials cannot be fabricated into a bag for your products and then go into a solution in a paper-mill beater, providing the water is not too cold and there is sufficient agitation. Thin films of these types can usually be fabricated by heat sealing, providing a small amount of water or water spray is used to dampen the area to be heated before going into the heat sealer.

It is suggested that you obtain samples of the various films mentioned and try them under actual paper-mill conditions to see if there is sufficient temperature and agitation to dissolve the bag gradually and disperse the contents properly. You must remember, however, that water-soluble films of this type will not protect hygroscopic products from moisture pick-up and it will be necessary for you to provide the bags with moisture protection by additional means.



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says
EDWARD A. LEVY,
Eddie's Super Markets,
Baltimore, Maryland

"Today, people like to see what they buy. In every department of the store, the visual package is attracting more customer attention. Glass-packed fruits and vegetables in our canned-goods department are no exception. Their added eye appeal is real sales appeal. We are going all out for fruits and vegetables packed in glass."



Glass packs stimulate sales by honestly displaying the quality of contents . . . People are reminded when they SEE. And when reminded, they BUY.

The time-proved glass package for prepared foods is the only visual package for processed* foods!

Glass has been a selling package for jellies, ketchup, pickles, peanut butter and many other products for years. And glass increases total food sales without using extra shelf space. Proof of this was established by careful market tests in the American Stores of Philadelphia. There, the new technique of displaying glass and tin side by side in the same space previously used for tin alone paid off, *in every instance*, by increased sales. TOTAL SALES of all items tested increased 35.6%.



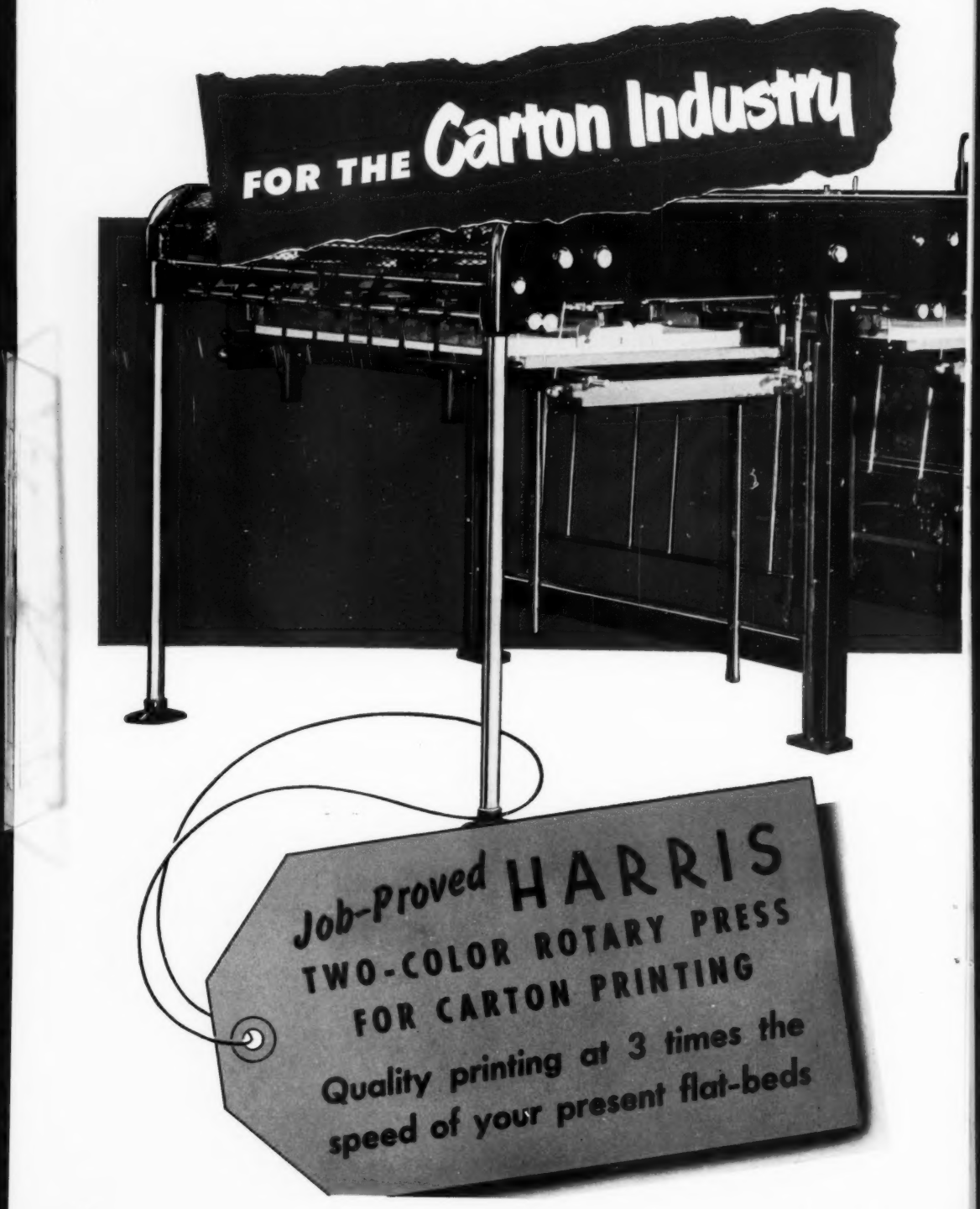
*Heat-sterilized in container

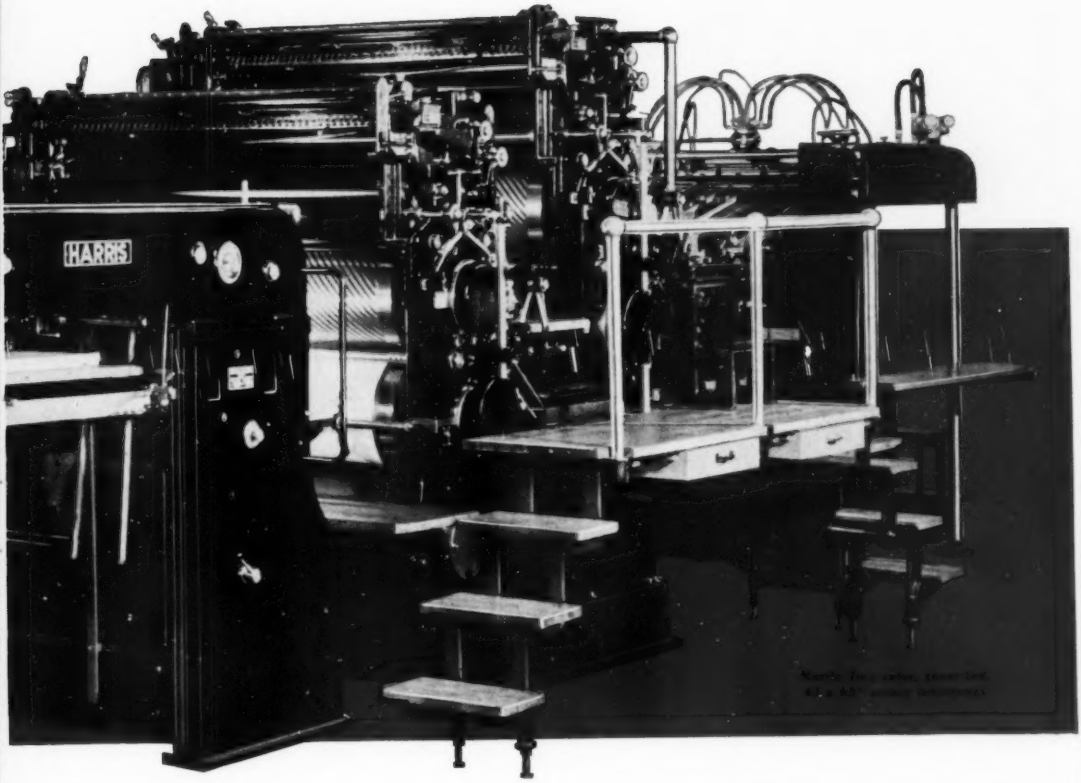
A glass pack is a convenient pack. Customers like the visible inventory they get with glass, and the safe, convenient way foods in glass can be stored in refrigerators.

Duraglas
TRADE MARK REG U.S. PAT OFF.

CONTAINERS SELL FOOD BY SIGHT

OWENS-ILLINOIS GLASS COMPANY
TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES


FOR THE Carton Industry
Job-Proved HARRIS
TWO-COLOR ROTARY PRESS
FOR CARTON PRINTING
Quality printing at 3 times the
speed of your present flat-beds



Here's a HIGH-SPEED PRESS that's designed for your kind of work

Carton printers rarely have an opportunity to *triple* press production without sacrificing quality. But this Harris rotary letterpress is not only doing that—it is even *improving* printing quality.

No detail has been overlooked to make this the finest press for profitable production. *Standard diameter plate cylinders,* for example, use electros curved with existing precision plate-making equipment. *Double delivery system* allows non-stop unloading and longer drying time for inks. *Five form rollers* give you unexcelled ink coverage.

These are a few of the ways in which Harris' 55 years of rotary press know-how pay off for you. For more information, consult Harris-Seybold in all principal cities, or at 4510 East 71st St., Cleveland 5, Ohio.

ROTARY PRESSES

POWER CUTTERS

HARRIS-SEYBOLD COMPANY

fine graphic arts equipment... for everybody's profit

for protective and economical packing materials always specify

Jiffy

You can always recognize a Jiffy product by its unique construction. Built-in expansion cushioning between two sheets of heavy, moisture-proofed kraft protect all products from damage in packing, transit and storage.



JIFFY PACKING MATERIALS are designed to meet your specific requirements.

PADS and BLANKETS—*Used extensively for shipping furniture, lamps, glassware, ceramics and enameled metalware. Available in a large variety of sizes.*

PADDED SHIPPING BAGS — *Self contained shippers ready for immediate use. For soft goods, semi-fragile and non-fragile items. Widely used by Department Stores and Mail Order houses at a saving of 76% in packing time. Unexcelled for single-book shipments—protect covers and corners of books. Available in 8 sizes.*

INDUSTRIAL PADDED SHIPPING BAGS — *For shipping of such items as electrical parts, machine or machined parts, hardware, gaskets and a variety of many similar items suitable for shipment in a bag. Jiffy Bags eliminate the need for all other packing materials such as cartons, boxes, inside fillers and overwraps. Ideal for C.O.D. shipments.*

LINERS — *For the protection of produce serve as floor liners for carload shipments of potatoes and onions. Also as liners for banana boxes.*

LIQUOR BAGS and SLEEVES — *Eliminate the need for cardboard dividers or fillers in the shipment of wines and liquors. As all Jiffy products they are clean, stack and store easily, are simple to use—save time, labor and money.*

Free Samples on Request

JIFFY MANUFACTURING COMPANY

360 FLORENCE AVENUE **HILLSIDE, N. J.**

See Jiffy products displayed at the
NATIONAL PACKAGING EXPOSITION Booth **245**

River Raisin
DIMENSIONAL DISPLAYS



River Raisin has the country's most complete display service . . . as convenient as your telephone . . . our versatile art staff creates the basic idea and the dimensional construction . . . our production experts produce the quality, finished display – DIMENSIONAL DISPLAYS that attract attention and sell your product.

ART

IDEAS

CONSTRUCTION

LAMINATION

PRINTING

CARD-BOARD

WOOD AND GLASS

PACKING AND SHIPPING



U. S. PAT. REG. NO. 531,356

ONE CALL FOR ALL

We manufacture corrugated and solid fibre shipping containers from materials produced in our own paper mills, thereby enabling us to deliver superior, colorful displays at lower costs to you.

•

CORRUGATED and SOLID FIBRE CONTAINERS
PACKING MATERIALS • FIBRE BOARDS
CORRUGATING STRAW









RIVER RAISIN PAPER COMPANY

DISPLAY DIVISION • MONROE, MICHIGAN

RIVER RAISIN PAPER COMPANY DISPLAY DIVISION MONROE, MICHIGAN

Gentlemen:

I would like to know more about your "ONE CALL FOR ALL" Display Service.

We start planning our point of sale campaign on or about_____.

We buy our point of sale on or about_____. It would be convenient for your salesman to call on us on or about_____

Company Name_____

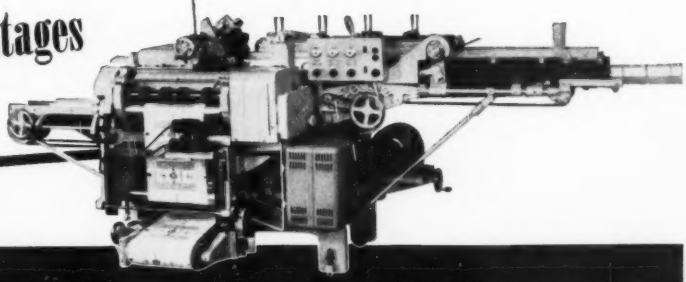
Address_____ City_____ Zone____ State_____

Telephone No._____ Signed_____ Title_____

check these important new advantages

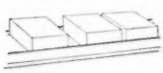
OF THE IMPROVED

BATTLE CREEK MODEL 46 WRAPPING MACHINE

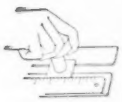




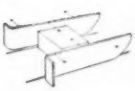
THESE NEW FEATURES PLUS SPEEDS UP TO 100 PER MINUTE CUT YOUR COSTS



1. AUTOMATIC CONTROLS handle intermittent flow of packages without need of operator. The Model 46 may be synchronized with other packaging operations by conveyors, and each package moving into the machine automatically unlocks its own sheet of paper, when in position for wrapping.



2. CALIBRATED ADJUSTMENTS allow quick changeovers from one package size to another. Only 5 to 10 minutes are required to change the Model 46 from one size package to another. Simple-to-use calibrated adjustments may be charted for future reference . . . save time in future set ups.



3. BREATHING FOLDERS take care of package variations . . . give a neat "show case" look to finished package. Bulges and slight irregularities in packages are easily handled by "breathing folders" to provide a neat, tight seal . . . eliminate shutdowns . . . achieve steady production . . . handle recessed end cans.



4. THERMOSTATIC HEAT controls handle the latest heat-seal papers. Improved, centralized thermostatic heat control panel with fingertip adjustments permits pre-heating of paper while it is being folded. Result? A tighter, more durable seal.

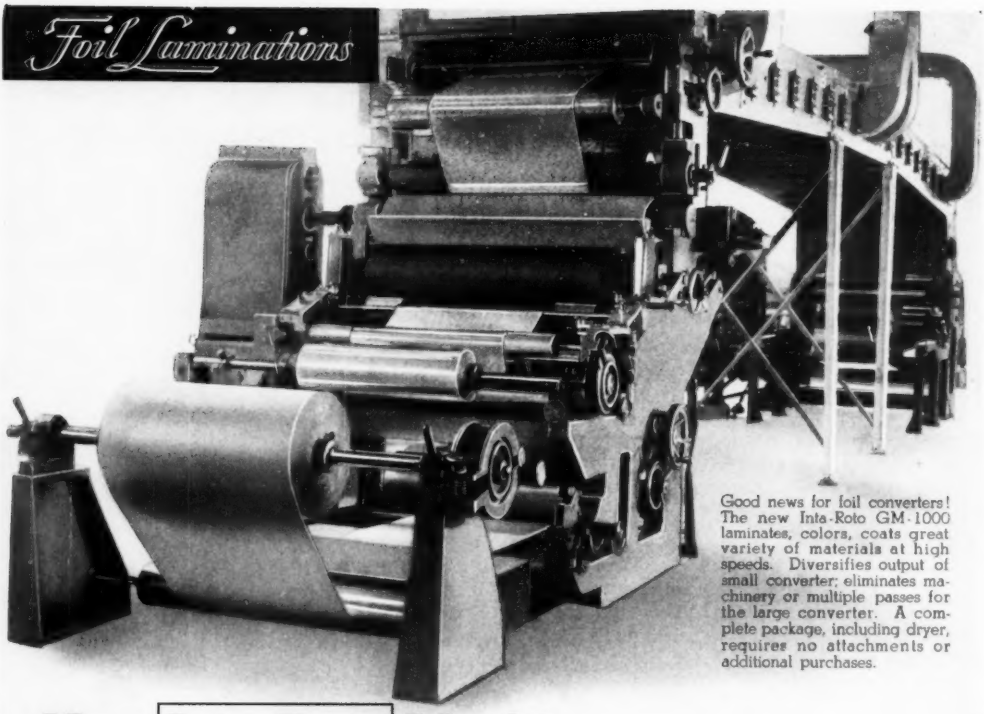
Continuous Flow PACKAGING

GIVES THE GREEN LIGHT TO PACKAGING PRODUCTION

BATTLE CREEK BREAD WRAPPING MACHINE COMPANY

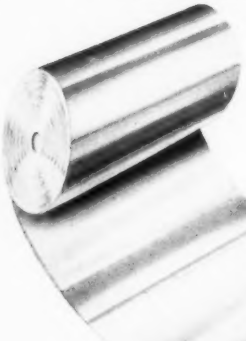
BATTLE CREEK, MICHIGAN

Foil Laminations



Good news for foil converters! The new Inta-Roto GM-1000 laminates, colors, coats great variety of materials at high speeds. Diversifies output of small converter; eliminates machinery or multiple passes for the large converter. A complete package, including dryer, requires no attachments or additional purchases.

New Inta-Roto Machine



LAMINATES } **FOIL**
COLORS } **FILM**
COATS } **PAPER**

Processes **MORE** *materials . . . at higher speeds!*

- Glue or heat-seal laminating, plus coating or coloring on one pass through machine.
- Runs foil from .00035 to heavy gauge. Foil feed-in mechanism compensates for variations in roll.
- Runs free hard foil successfully; minimum of wrinkles and breaks.
- Glue application by knurled cylinder or conventional metering.
- Coloring, coating, or print-treating precision unit; permits endless design printing; takes wide range of cylinder diameters.
- Rewind section equipped with heated nip-roll, thermostatically controlled, and large water-cooled rolls.
- Constant tension rewind assures smooth operation and solid rolls from 6 to 36 inches in diameter.
- Heavily built throughout for high production speeds.
- Built on unit principle; additional combinations may be obtained.

DESIGNED, PRODUCED AND SOLD AS A COMPLETE UNIT. WRITTEN GUARANTEE OF PRODUCTION SPEEDS AND VARIETY OF MATERIALS WHICH CAN BE PROCESSED.

- **Write today for more information.**

INTA-ROTO
MACHINE COMPANY, INC.
BYRD AIRPORT - RICHMOND, VA.

The Container That Helped Make

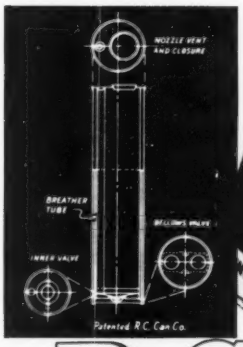
OVER 5 MILLION SALES

R.C. SPRA-CAN



Dress Up Your Product with These Exclusive Features:

- ***Controlled Power Pressure*** . . . Sprays at any angle. Upside down or sideways.
- ***Countersunk Nozzle Vent*** . . . Uniform spray . . . no "puffs" or "blasts".
- ***Sturdy Bellows Diaphragm*** . . . Built for roughest usage.
- ***Rapid, Non-Binding Bellows Action*** . . . Free-working at all times, moisture-resisting stock for all climates.



It takes a quality product PLUS a quality-engineered container, to ring up over 5 million bug-duster sales.

Many garden and insect dust packers realized this when they brought their products to R.C. engineers to be "dressed up" in an efficient package. The R.C. SPRA-CAN was the answer—a specific answer to the strong consumer resistance to past inferior, make-shift dusters.

The result is a winning combination: a sturdy container that provides the favorable *first* impression . . . a foolproof, dependable design that assures *lasting* satisfaction (and profit-building *resales*)!

■ **PERHAPS THERE'S A SALES-SUCCESS STORY HERE FOR YOU! WHY NOT CALL IN OUR EXPERIENCED PACKAGE ENGINEERS TODAY?**

R·C· CAN COMPANY

R.C. CAN CO. The Stamp of Quality ST. LOUIS, MO.

MAIN OFFICE and Factory 103 Chambers St., St. Louis 6, Mo.

Branch Factories: Arlington, Tex.; Rittman, O.; Kansas City, Mo.

SALES OFFICES:

C. E. DOBSON, 819 Carondelet Bldg., New Orleans 12, La. R. C. CAN CO., 225 W. 34th St., New York, N. Y. L. C. MORRIS CO., 1125 Spring St., N. W., Atlanta, Ga.
S. W. SCOTT, 608 McCall Bldg., Memphis 3, Tenn. E. F. DELINE CO., 224 W. Alameda, Denver 9, Colo. W. L. BENNETT, 126 S. Third St., Minneapolis 1, Minn.
CAN SUPPLY CO., 1006 W. Washington Bldg., Los Angeles, Calif. GARRET P. KELLY, 1300 East Park Place, Milwaukee, Wis.

Equipment and materials

A NEW MODEL TRANSWRAP

the Model C, is announced by the Transparent-Wrap Machine Corp., Hasbrouck Heights, N. J. The machine makes the familiar pillow-type package up to 13½ in. long and 9½ in. wide,



in cellophane or polyethylene, as against the previous size limit of 12½ by 5½ in., and will be adapted to laminated heat-seal materials as well as other package styles. New features of the machine, in addition to larger package size, are its versatility in feeds; use of hydraulics to permit a more compact design, simplified adjustments and easier operation and maintenance. Feeds available are the volumetric turret-plate, auger and a new, extremely accurate scale feed especially built for the machine. The manufacturer points out that the new scale feed permits regulation of the machine cycle to the scale feed cycle—to give maximum accuracy in the finished package. The end seal mechanism is hydraulically operated with a simplified pressure adjustment by a check-valve control. Application of hydraulic operation to the photoelectric regulator further reduces the operation and maintenance problem, it is claimed. The accompanying illustrations show a typical package produced by the Model C Transwrap and the new auger feed, which has an electric clutch brake mechanism to give extreme accuracy. The auger feed is available as an individual unit for many types of semi-automatic packaging set-ups, as well as all model Transwrap machines.

A DRUM-LINER SEALER

for fabricating and closing seals on any heat-sealable material in any width up to 42 in. has been developed by Vertrod Research Laboratories, 17 Williams Ave., Brooklyn 7. The drum liner sealer employs the thermal-impulse process.

A NEW LINE OF STANDARD PRINTING INKS

has been developed by the Sigmund Ullman Co., Div. of Sun Chemical Corp., 2820 W. Grand Ave., Chicago, for distribution in the Midwest. A specimen book, titled "Off the Shelf" has been issued and shows 35 standard colors and 20 standard tints, printed in solid and screen values. Included are formulae for both opaque and transparent tints. The tints are formulated from six basic components which can be purchased in a single package. According to the company, the inks were developed for Miehle verticals and horizontals, Kellys, Millers and other automatic presses.

A NEW ONE-MAN, PORTABLE LOADER

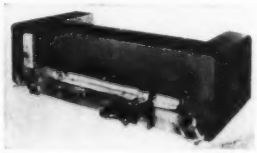
for handling heavy equipment where there is no loading dock is offered by the Belsaw Machinery Co., 315 Westport Rd., Kansas City, Mo. It weighs only 149 lbs. The conveyor frame is made of 3¾ in. by 10 gauge channel steel and is 10 ft. long. The top end of the frame is designed to maintain its position on a truck bed or ledge under load operation. Rollers are steel, ball bearing, 16 in. wide on 12-in. centers. The loader is equipped with a two-speed winch, (9 to 1 and 3 to 1 ratio) and a ¼-in. steel cable.

MULTIPLE SPOUT FILLING HEADS

for portable vacuum fillers are now being produced by the Scientific Filter Co., 56 Rose St., New York. The adjustable four and six spout heads are said to be inexpensive and are designed for those packagers requiring greater output for standard sizes of bottles or cans. For perfumers and other manufacturers filling small vials, solid block filling heads up to nine spouts can be used to solve the problem of large output at nominal cost for equipment, it is claimed. The vials can be filled in trays or right in the shipping cartons without any further handling. The filling heads are designed to be particularly useful for odd-shaped bottles or vials which cannot be handled efficiently on larger, more automatic equipment.

A DEVICE FOR INSPECTION OF PRINTING WEBS

without slowdown or press stoppage is offered by National Laboratories & Mfg. Corp., 233 Chestnut St., Ridgewood, N. J. Called "Scan-A-Web," the instrument consists of an optical scanning system that picks up each pattern as it passes on the web. This results in a visual stationary image with no "off" time between successive patterns. Strip mirrors mounted on a drum are rotated at the correct speed to give the stationary image during high speed production runs. The rotating drum is driven by an electric motor geared to the press to give continuous synchronization with any press speed.

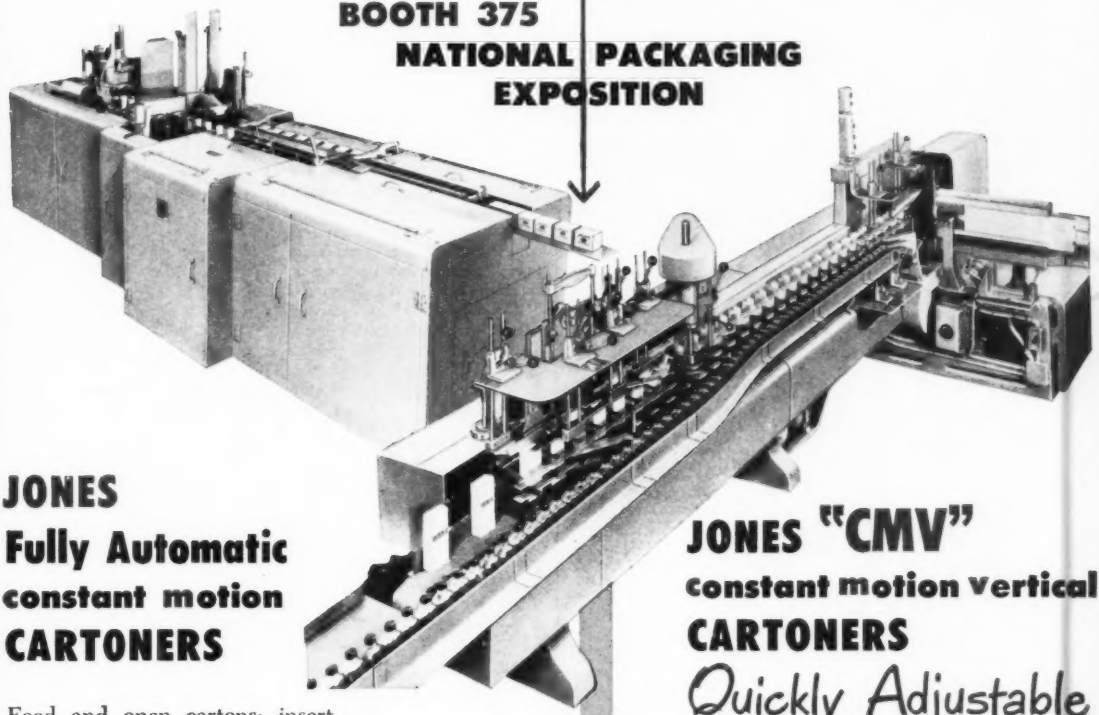


A NEW AUTOMATIC CLOSURE HOPPER

for the "Tite-Cap" screw-capping machine has been developed by the Tite-Cap Machine Co., Inc., 56 Rose St., New York. The new hopper is designed to handle all caps—molded and metallic, in a variety of sizes and shapes—without the necessity of making adjustments or changes. The hopper is equipped with a revolving drum to keep the caps in gentle motion and prevent them from sticking together. To facilitate emptying the hopper at the end of a run, it has been equipped with a side-opening door held in place by one nut only. A view glass on the door permits inspection to determine when the supply of caps must be replenished. All chucks are equipped with an adjustable tension

JONES CARTONERS *IN ACTION!*

BOOTH 375
NATIONAL PACKAGING EXPOSITION



JONES Fully Automatic constant motion CARTONERS

Feed and open cartons; insert single or multiple loads; glue or tuck flaps of cartons – airplane or reverse tuck.

Fold and insert leaflets, booklets, corrugated liners; print or stencil code; are convertible to different sizes of cartons and loads.

Speeds: up to 300 per minute, depending on size and type of load.

See Jones Cartoners in Action!

JONES "CMV" constant motion vertical CARTONERS

Quickly Adjustable

TO ANY SIZE CARTON

FROM $\frac{3}{4}$" x $\frac{1}{4}$" x $2\frac{1}{2}$"

TO $3\frac{1}{4}$" x $3\frac{1}{4}$" x 8"

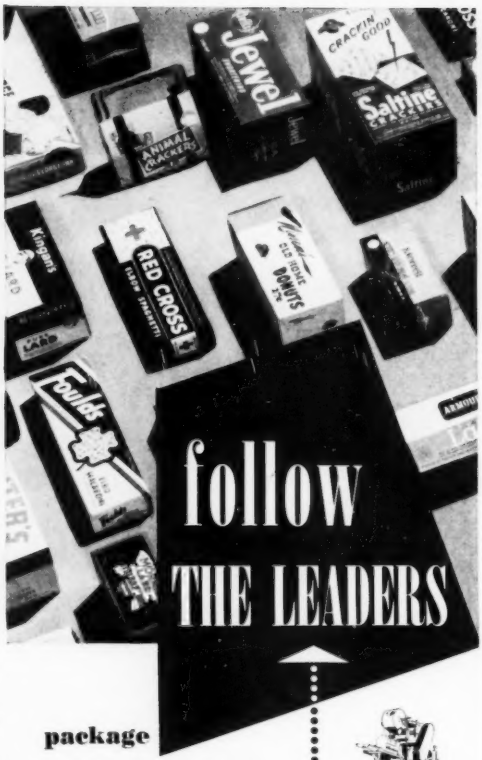
Feed and open cartons – airplane or reverse type; tuck bottom flaps; carry cartons upright in *constant motion* past loading stations for manual insertion of load; tuck top flaps.

PUT JONES ON YOUR EXPOSITION SCHEDULE

R. A. JONES & COMPANY, INC.

Cartoning Machinery — Since 1902

P.O. Box 2055
Cincinnati, Ohio

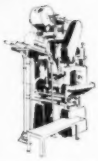


package your products the *multi*-saving Peters way!

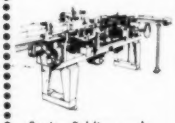
You save space . . . manpower . . . time . . . money when you package the Peters Way . . . in open-top cartons—automatically handled through Peters forming and lining and Peters folding and closing machines.

The Peters line of packaging equipment is as complete as its machines are versatile. There are machines to fit your exact requirements, determined by your production capacity, packaging schedule—and your budget.

To obtain the *multi*-savings benefits of the Peters-way, simply write or phone. Or, send carton samples for specific recommendations.



Senior Forming and Lining Machine



Senior Folding and Closing Machine



Junior Folding and Closing Machine



Junior Forming and Lining Machine

See us in Booth 642-44 at the Packaging Exposition . . . April 1-4.

Peters MACHINERY CO.
Ravenswood Avenue
Chicago 40, Illinois

Equipment and materials

device, easily regulated for controlling the tightness of the cap to suit individual requirements. Speed of this single head automatic capper is rated at 60 containers a minute.

A NEW METHOD OF REGISTERING LABELS



on beverage bottles is announced by the Owens-Illinois Glass Co., Toledo. The device employed is a round-type flush or "dimple" registering lug, which in appearance resembles a small, round indentation. The dimple lug is said to assure more exact placement of the label design on the bottle and more positive registration between colors. Bottles with the new-type lug are handled efficiently on all types of bottle line operations, it is claimed, and will be used ultimately on all types of ACL containers produced by O-I. Tests, the company reports, demonstrate beverage bottles with the dimple lug operate smoothly in coin operated vending machines.

ENGLISH-MADE MARKING AND PRINTING MACHINES

manufactured by Rejafix Ltd., of London, will be distributed exclusively in this country by Popper & Sons, Inc., 300 Fourth Ave., New York. The machines are said to mark and print on glass, metal, paper, rubber and plastics; and will mark permanently, by use of special Rejafix inks, such articles as ampuls, vials, collapsible tubes, cans, bottles, jars, folding boxes and labels. Models range from hand-operated types for small output to fully automatic machines for mass production.

TEAR-RESISTANT CORRUGATED BOXES

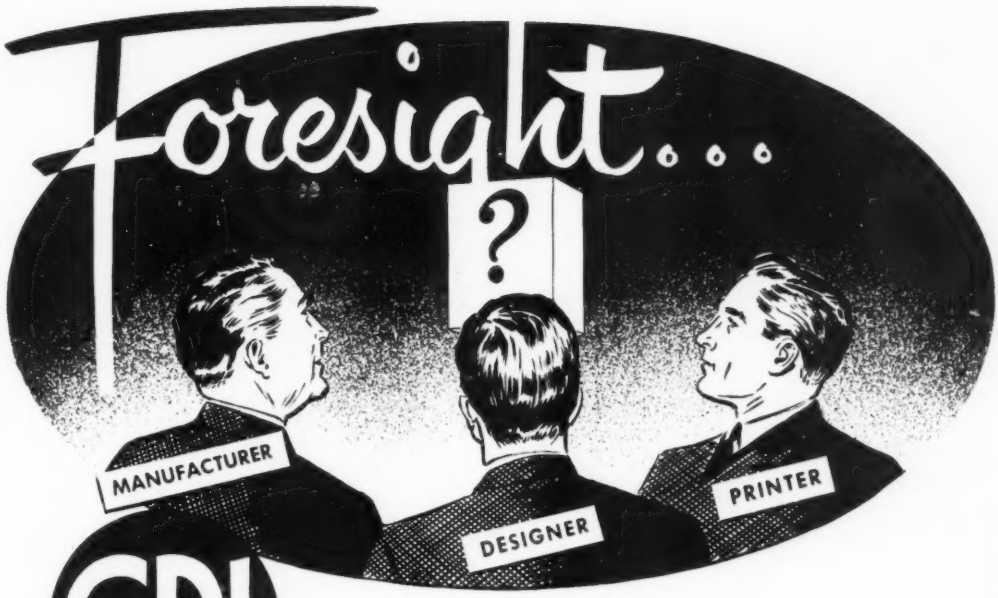
are a development of the Shelton Mfg. Co., Inc., Newark, N. J. Known as "Tufedge," the boxes are made by a process especially designed to reinforce the flapscores. Tests made by a private laboratory, reportedly, show greatly improved test performance.

A NEW GREASE-RESISTANT VEGETABLE PARCHMENT

known as Patapar 27-21T, is announced by the Paterson Parchment Paper Co., Bristol, Pa. The new 27-lb. basis weight parchment was developed to provide a lightweight paper for use where high resistance to oil penetration is a factor. It is said to give complete resistance to oil or grease crawl; high resistance to oil penetration and improved resistance against oil staining. For these reasons and because of its light weight, it is intended to help reduce packaging costs by eliminating the need for 35-lb. papers in certain operations. By choice of the proper adhesive, it can be laminated or spiral wound onto board to produce containers of extremely high grease resistance.

AN IMPROVED PACKAGING SERVICE

is announced by the Lamcote Div. of Arvey Corp., Chicago. In response to a demand for a complete packaging service, the company has extended its facilities and now, for the first time, will produce multi-color printing on plain or laminated films, foils, glassines and similar materials used for packaging. Aniline or gravure printing will also be offered. The new service will complement the present creative planning and production facilities for turning out all types of Lamcote packages, in-



GPI

INKS for PACKAGE PRINTING

When a package is being designed that is the time to consult your printer and ink maker. They know the type of printing ink that will be best suited for each particular job. Foresight at this point can save time and money.

HYDRY made by GPI is a moisture-setting ink that prints bright and clean in a full range of brilliant colors. Many food, confectionery, tobacco and drug packaging problems are eliminated by the use of this ink which *dries quickly*. HYDRY is a real time and money saver since waxing, folding or die-cutting operations can be started as soon as sheets come off the press . . . and no storage time is needed for drying.

ANILINK made by GPI is a 100% pigmented ink for aniline printing on plain or coated paper, board, cellophane, glassine, acetate, foil and other materials. You will find that ANILINK has the necessary color strength to produce opaque results. It performs well on the press and gives clean, sharp and glossy prints. You can get ANILINK in colors to match your sample — in pastel or brilliant tones.

GRAVURE inks made by GPI can't be beat for long run multi-color printing of labels, wrappers, bags and folding boxes on a wide variety of paper stock, ranging from manila to pasteboard, cellophane, foil and glassine. You can depend on GPI GRAVURE INKS to have the consistency and drying speed required to give dense solids and bring out fine detail.

If your requirements involve special formulations or any inks not listed here, please write us. We are at your service for complete information on ink and color.

GENERAL PRINTING INK COMPANY

DIVISION OF SUN CHEMICAL CORPORATION

10th STREET & 44th AVENUE • LONG ISLAND CITY 1, N. Y.

Offices in Principal Cities.

TUCK-O-MAT

tuck end carton set-up machine



ATLANTIC CITY — APRIL 1-4
BOOTH 512

Model 50 TUCK-O-MAT occupies only 24" x 42" floor space. Portable on rubber wheels.

- **Reduces labor costs as much as 85%**
- **Fast change-over time**
- **Requires part-time attendant only**
- **4000 cartons per hour output**
- **Inexpensive change parts**
- **Runs wider range of carton sizes**
- **Low initial cost**

Standard TUCK-O-MATS are running hundreds of different size cartons. For greater packaging security the TUCK-O-MAT, with special attachments, will set-up 4-flap interlocking bottom cartons.

The Model 54 CONVEY-O-MAT delivers cartons in an upright position ready to receive your product.

SEND US YOUR CARTONS AND OUR ENGINEERS WILL GLADLY MAKE RECOMMENDATIONS

Machinery Mfg. co. inc.

2431 Dallas Street, Los Angeles 31, California
Dist. by New Jersey Machine Corp., Hoboken, Cincinnati, Chicago

Equipment and materials

cluding the Lamcote "Showcase" package with self-window. The firm invites manufacturers and package producers to submit samples of their products, at no charge or obligation, to its packaging division for the preparation of layouts and dummies which utilize printed acetate and other sheets for packages.

A NEW PROTECTIVE CUSHIONING MATERIAL

for interior packaging is announced by Gilman Bros. Co., Gilman, Conn. Known as Celluliner, the product is a fluffy redeemed cotton waste product claimed to have a compressive resilience of 71.4%. It is said to have good thermal insulation properties. It is offered in two types—absorbent or non-absorbent; is chemically neutral, with a hydrogen ion concentration of 6.8; and can be flameproofed or mildewproofed. Celluliner, both absorbent and non-absorbent, meets or exceeds Federal specification UU-C-843, it is said. For general use, the product comes in rolls or sheets, 4 to 80 in. wide, and employs various types of facings and stitchings to provide specified characteristics.

A NEW MODEL DIE SAW

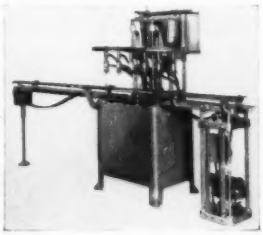
equipped with micrometer gauges for the production of precision steel rule carton dies is announced by the J. A. Richards Co., 903 N. Pitcher St., Kalamazoo, Mich. Known as the "Electromatic," the machine is built in two sizes and furnished in four models. A ¾ H.P. motor is standard equipment.

A LINE OF BASIC VINYL PLASTICS

is announced by the Watson-Standard Co., Pittsburgh. There are five vinyl plastics, or dispersions, in the line: Organosol, Plastisol, Foamosol, Rigidsol and Plastigel. They are primarily designed to apply to different types of molding, making it possible to produce finished items with accent on chemical resistance, durability and a wide range of flexibility.

A NEW GRAVITY FILLER

manufactured by the MRM Co., Inc. 191 Berry St., Brooklyn, features a gravity feed tank that is adjustable for height. The tank is controlled with its own individual float control mechanism. Because the height of the tank is adjustable, the machine can efficiently fill foamy materials and other sensitive matter, it is claimed, for the tank can be lowered to a height where the slightest amount of pressure is exerted. This practically eliminates any foam overflow and permits handling some of the more delicate wines without aeration of any kind. The manufacturer also points out that the construction of the spout is of particular interest, since it is made of only two sleeves without any packing. The element of contamination so common in many other spout designs has been completely removed, it is claimed. Also, hot materials can be safely filled into containers, for there is no packing in the spouts to cause trouble. Containers from fractional ounces to two-gallons are handled in glass or metal.



A NEW LINE OF ODORLESS CHIPBOARD CARTONS

employing "Neutrotex" Coating and said to be highly grease resistant is offered by Gordon Cartons, Inc., 1629 Warner St., Baltimore. The cartons are now being used for such products

Cross Swing Sifters

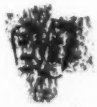
NOW WITH *NEW* PLASTIC SIFTERS . . .



Cross Swing Sifters - - - today's modern container - - - affords your package an all-round versatility which makes it stand out in competition and step out with greater sales for you.

Cross Swing Sifters are being used for cosmetics, foods, drugs, pharmaceuticals or any other product that can be dispensed through a shaker or sifter . . . . Can we serve you?





Samplers



Cross round miniatures, an exact replica of your full size container, provides the answer for the perfect sample package. Both full size and samplers can be filled with any standard filling equipment.

Ask for a representative to call, or write for details and samples.

CROSS PAPER PRODUCTS CORP.

4377 Bronx Boulevard New York 66, New York

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WRENN PAPER COMPANY

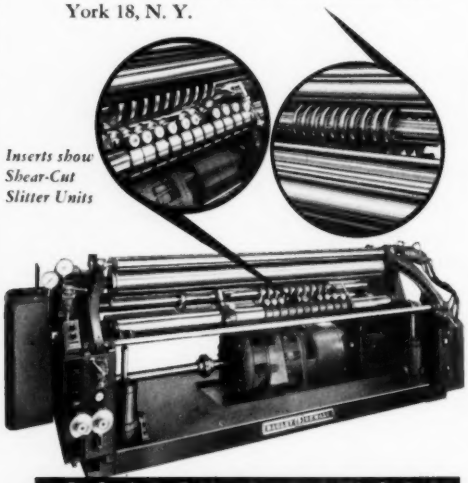
SELECTS B&S **SHEAR-CUT SLITTER-REWINDER**

The Wrenn Paper Company, widely recognized for its high quality products, was faced with the problem of slitting a hard-to-handle material. Clean, square edges and uniformly wound rolls were of utmost importance.

After considering several machines, the Bagley & Sewall #15 Shear-Cut Slitter-Rewinder was selected.

B & S Slitters and Rewinders are doing outstanding jobs in mills and converting plants all over the country. Their many unique money-saving advantages make them the first choice of the industry. Before you buy, *compare*...and your choice, too, will be B & S Slitting and Rewinding equipment.

For full details write to The Bagley & Sewall Company, 500 Fifth Avenue, New York 18, N. Y.



Inserts show Shear-Cut Slitter Units

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WATERTOWN, NEW YORK

designers and builders of

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500 FIFTH AVE., NEW YORK 18, N. Y.

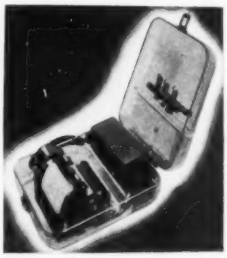
Foreign Representative: CASTLE & OVERTON, INC., 630 Fifth Avenue, New York 20, N. Y.

Equipment and materials

as chocolate candies and baked goods. The Neutrotex-coated board, it is claimed, effects important savings in packaging costs by permitting use of chipboard containers since it prohibits board odors from getting into susceptible products and has excellent greaseproof properties.

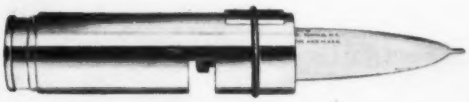
AN IMPROVED THREE-WAY IMPACT RECORDER

is now offered by The Impact-O-Graph Corp., 1900 Euclid Ave., Cleveland. New features include a stronger lightweight plastic case; a recording styli bracket which is affixed to the cover and allows greater freedom of movement by the styli and a more positive mark on the processed tape; a new non-slip tape drive that rigidly controls the 1-in. per hour rate of movement on the tape; plus other practical improvements for accurate operation of the instrument. The impact recorder has three individually operating scribe arms which record impacts from all directions and an electrically-operated motor that makes possible continuous operation for a minimum of 28 days. The instruments are used in tracing shipping damages and in pre-testing packaging. They record the time of shock and the direction and severity of jolts the package receives.



A NEW COLLAPSIBLE TUBE HOLDER

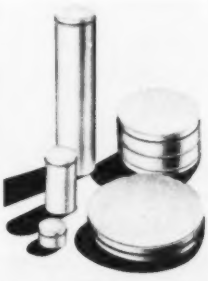
said to be the first of its kind, has been developed by the Arthur Colton Co., Div. Snyder Tool & Engineering Co., Detroit. A section of the tube holder under light spring tension grips the



tube firmly without squeezing it. A slot at cap depth allows for automatic cap tightening in the fill cycle. The tube holder and the cap tightening equipment, it is said, can be installed on any Colton automatic tube filling machine in a matter of minutes. The new collapsible tube holder is patented and is called the "Kasle."

INDIVIDUALLY SIZED CANS

in both pieced and seamless styles are offered by the Vulcan Tin Can Co., P.O. Box 367, Bellwood, Ill. A variety of diameters is offered in sizes of 2¾ to 12¼ in. Heights range from 2 to 19 in. Covers with flat curled edges are supplied and have indentations at the top to hold securely the can placed upon it for stacking. The containers, available in large or small quantities, are recommended by the manufacturer for parts packaging, es-



ONE OF THESE 5 WORLD LABELERS IS

the best Labeler in the World for you

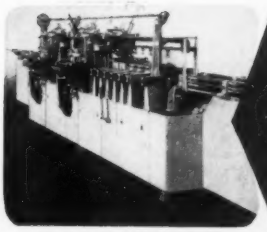
Which one, in your case, depends on

your production needs
your label types and sizes
your glass container shapes and sizes

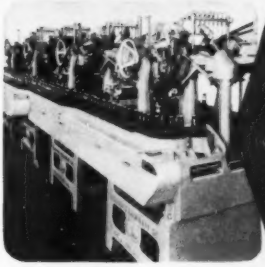
Once we have the story we are in the world's best position to recommend the best Labeler in the WORLD, because no one else makes such a complete range of Semi-Automatic and Full Automatic Labelers.

Whatever your label application problem, put it up to us to demonstrate which one of these five is the best Labeler in the World for *you*.

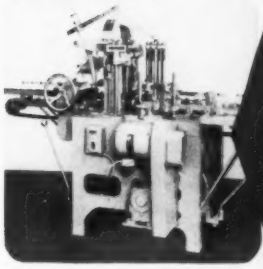
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Packaging Exposition — Atlantic City



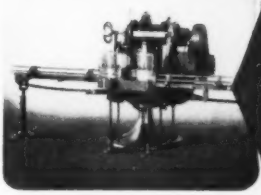
WORLD BEE-LINE



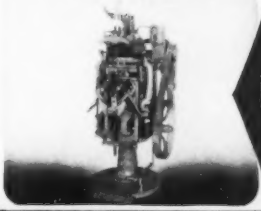
WORLD TANDEM



WORLD TURRET



WORLD ROTARY



WORLD MODEL "S"
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DIVISION OF GEO. J. MEYER MANUFACTURING CO.
MILWAUKEE, WISCONSIN

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Now...Triangle's 'pay-as-you-package' plan BRINGS YOU new benefits

If you're wondering, "When should I buy new packaging machinery?" . . . read this . . .

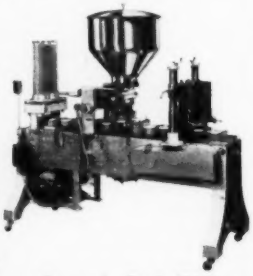
Now you can obtain all the advantages of Triangle weighing, filling and sealing machinery . . . with the added help of Triangle's 'Pay-as-you-Package' Plan.

In many cases, just a part of the savings earned with new Triangle equipment covers its cost. Manpower and time savings quickly show substantial new profits for you.

There's a Triangle or Triangle-Bagby machine to meet your exact requirements . . . to fill all dry and semi-liquid food, bakery and dairy products. Investigate . . . without delay.



Triangle offers a complete line of weighing and filling equipment—such as the Tri-angle Elec-Tri-Pak.



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Send complete facts about your 'pay-as-you-Package' Plan. We fill _____ (product).

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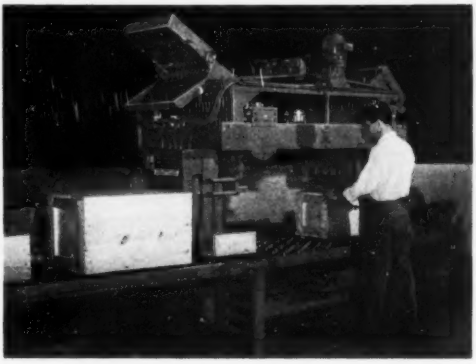
City ..... Zone ..... State .....

Equipment and materials

pecially parts with close tolerances and high finishes. The can may be hermetically sealed quickly and easily by applying pressure-sensitive tape and coating the tape with a suitable type lacquer-like solution. Effectiveness and economy are claimed for these containers because they are sturdy, and open and close easily for repeated use.

A NEW BOX LIDDER

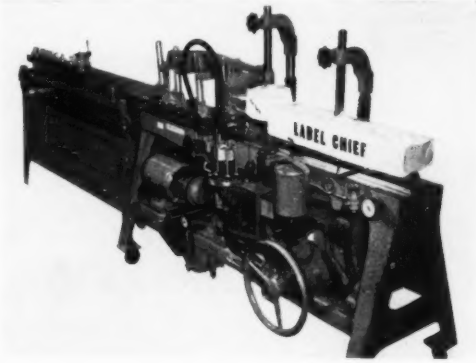
that automatically adjusts its nailing mechanism to handle various sizes of wooden boxes has been developed by engineers of the Food Machinery & Chemical Corp., Packing Equipment



Div., Riverside, Calif. The range of box sizes handled is from a minimum of 6 in. deep, 6 in. wide and 15 in. long to a maximum of 18 in. deep, 24 in. wide and 50 in. long. According to the manufacturer, the machine end-nails lids at a rate of 400 to 600 boxes of mixed sizes per hour. The nail chucks automatically adjust to the size of the box and drive the number of nails required to secure the lid to the box. The lid-nailing machine is equipped with a by-pass lever which permits boxes that have already been lidded, or cartons which do not require lidding, to pass through the machine without interrupting the production flow.

NEW AND IMPROVED LABELERS

are announced by Able Engineering, Inc., 607 22nd Ave., N. E., Minneapolis. The new model, the "Label Master," handles ungummed, pre-gummed and heat-activated labels. An improved



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50 YEARS



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CINCINNATI, OHIO



Booth 955

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George Stevens	Walter Conlan
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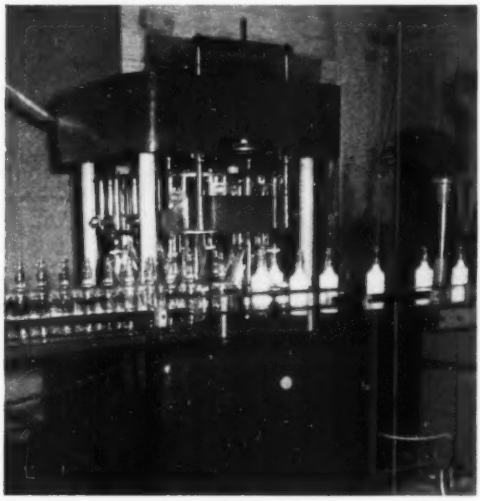
George Corbin

INKS FOR ANILINE • LETTERPRESS • LITHOGRAPHY • ROTOGRAVURE

model, the "Label Chief" is for ungummed and pre-gummed labels, and the improved "Label Champ," applies heat-activated labels only. Functional features of all three models consist of extremely simple adjusting mechanisms, it is reported, for various sizes of labels and containers; and the adjustments are accurate and non-fluctuating so that labels are affixed precisely and identically on each container. Other improvements claimed include a completely new idea for the label table and a re-designed auto-feed unit, all precision built to assure economy and versatility. The Master and Chief models, according to the manufacturer, employ the principle of spray application of adhesive to ungummed labels or of water to pre-gummed labels because the resulting layer of adhesive or moisture on the label is 1/10 that obtained in the use of the roller method.

A NEW LINE OF LIQUID FILLERS

is announced by Lipac, Inc., New York. One of the fillers featured in the line is the automatic, rotary, vacuum type, L-16 (illustrated). This bottle filler is specially designed to minimize



maintenance, changeover and cleaning. All parts of the machine are readily accessible for maintenance and every part coming in contact with the liquid is removable for cleaning. The filler is equipped with 16 filling valves. Contact parts are stainless steel. Other features are an 8-ft. table-top chain conveyor; variable speed drive; safety clutch; and removable tank. The filler, it is said, can fill up to 150 containers a minute, depending on the type of container and the product handled. The filler will handle free flowing, foaming and viscous liquids. Range of adjustment is from fractional-ounce to 1-gal. containers. The company will also produce special filling equipment for filling 1- and 5-gal. containers with a measured amount of liquid or filling equipment that is especially designed for handling corrosive products.

JAGENBERG PACKAGING AND LABELING MACHINERY

will be distributed exclusively in this country by Alfred Hofmann & Co., West New York, N. J. The Jagenberg Werke, Dusseldorf, West Germany, makes a wide range of high pre-

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Booth 596

A. M. A. Packaging Exposition

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MANUFACTURING COMPANY

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WHIZ-PACKER Sets the Pace!

—and the operator follows. Even an unskilled operator can—

PACKAGE DRY PRODUCTS

at maximum speed—and accurately too.

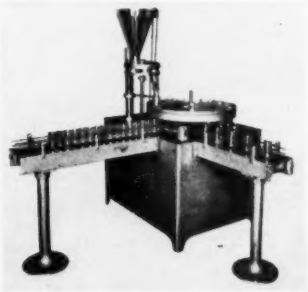
WHIZ-PACKER FILLING MACHINES are specially designed for packaging dry products such as: Powders • Nuts • Crystals • Candy • Seeds • Teas • Coffee • Spices • Frozen Foods • Soup Mixes • Peanuts • Beans • Popcorn, etc.

They're efficient, sanitary, easy to clean. Assures positive fill with no spillage.

WHIZ-PACKER

Package Filling Machine

Rotary Model with RIGHT ANGLE CONVEYOR



Automatic Rotary Filler and Conveyor Combination is a high speed packer for flat bottom containers in a broad range of sizes and shapes, having wide or narrow openings. Each model is custom built and designed especially to handle granular and powdered materials where vibration for a tight pack and elimination of dust accumulation are required.

You are invited to see the new Whiz-Packers and consult our packaging engineers at the Packaging Show, Booth 325 & 333 (Frazier—Amsco—Miller—Simplex).

If unable to visit the Show, send product sample and container for more information. No obligation, of course.

FRAZIER & SON

338-01 Cortlandt St., Belleville 9, N. J.

EXCLUSIVE DISTRIBUTORS

EASTERN STATES — AMSCO PACKAGING MACHINERY, INC., LONG ISLAND CITY, N. Y.

WESTERN STATES — SIMPLEX PACKAGING MACHINERY, INC., OAKLAND, CALIFORNIA

MIDWESTERN & SOUTHERN STATES — MILLER WRAPPING AND SEALING MACHINE CO., CHICAGO, ILL.

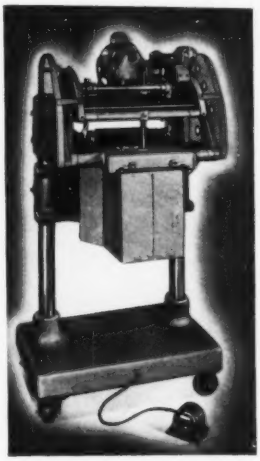
CANADIAN — THIN SALES COMPANY, TORONTO, CANADA

EXPORT — THE FRAZIER COMPANY, INC., NEW YORK, N. Y.

cision labelers, both semi-automatic and fully automatic units—ranging in speed from 35 to 250 labels a minute. A recent Jagenberg development is a completely airtight and siftproof low-cost carton (Eco-Pac) that can be set up from cut blanks, filled and sealed at a rate of 120 a minute, it is claimed. Alfred Hofmann & Co. will provide complete service of machines and will stock spare parts for quick delivery.

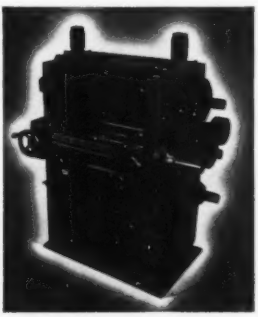
A NEW CARTON IMPRINTER

is manufactured by the Young Carton Printer Div., Diagraph-Bradley Industries, Inc., Herrin, Ill. The chief feature of this imprinter is the attractiveness and legibility of the printed legend which is comparable, it is claimed, to that of letterpress printing. The imprinter is designed so that hand engraved dies, molded dies and logotypes can be used to print trademarks or brand names in the same style of the rest of the product's labeling to contribute to the merchandising appeal of the carton. Individual, interchangeable type, made of rubber, is also available for use in the master die plate and type holders. To meet Quartermaster specifications the company has designed a special plate with the crescent and type channels mounted on it. The imprinter handles either empty set-up cartons, including those with partitions and liners, or knock-down carton blanks in all standard sizes, printing both end panels at speeds up to 28 per min., according to the company. For printing blanks or partitioned cartons, special tables and gauges are furnished by the manufacturer. The maximum imprint area is 9 by 9 in. The unit uses a quick-drying, indelible, waterproof ink.



A NEW LABORATORY-SIZED COATING UNIT

is manufactured by Dilts Machine Works, Fulton, N. Y. The machine, called the "Contracoater," is available in 15- and 22-in. roll face widths. One of the features of the unit is that it can be threaded in 29 different ways for coating and laminating experiments, according to the company. It can be operated for direct, kiss, squeeze, dip, offset, gravure and reverse roll coating with a minimum of set up time, it is said. The rolls are also bored for steam, oil or electric heating so that the unit can be used in studying hot melt applications as well as cold coatings. All rolls in the coater are of the same larger diameter as on production machinery.



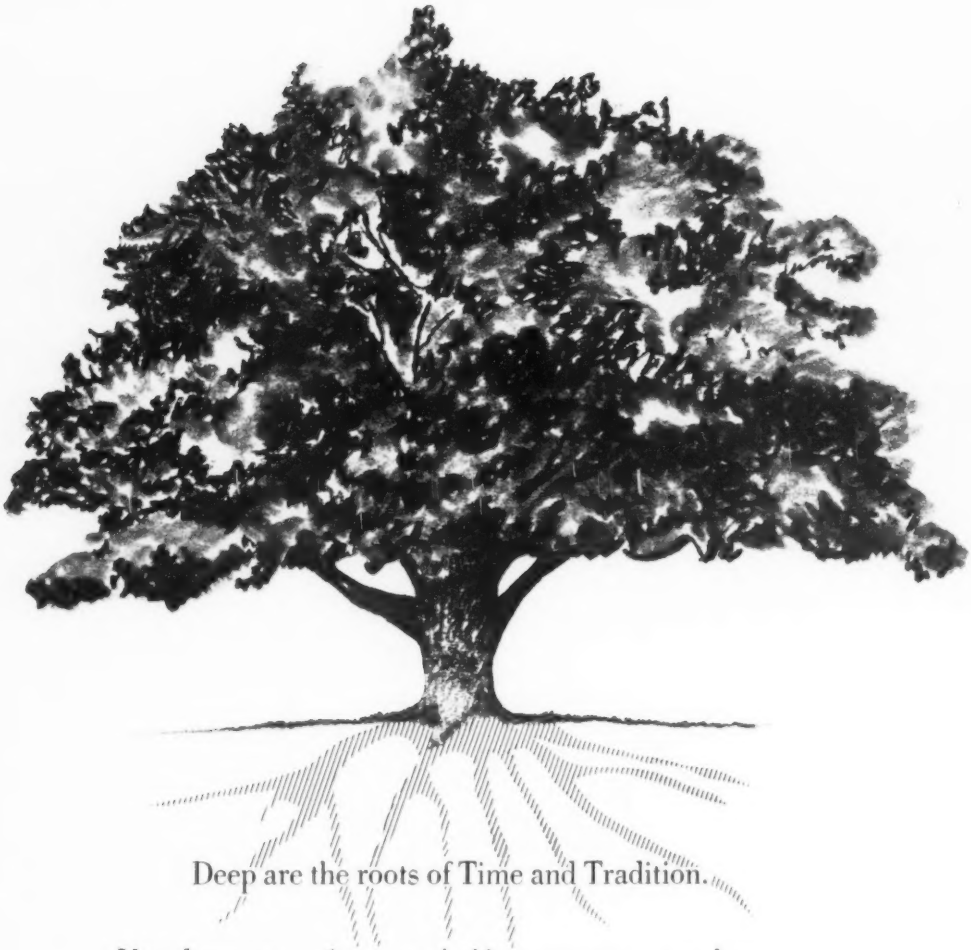
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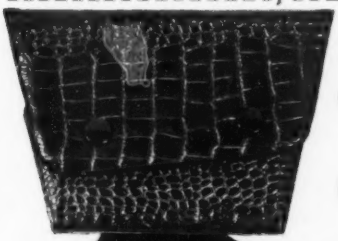
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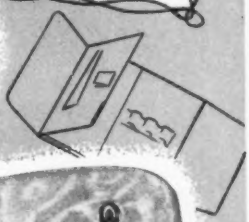
E-I Plastic Packaging for Manicure Sets



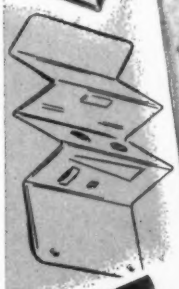
THE ENDURING CASE THAT ADDS **NEW GLAMOUR** TO YOUR PRODUCT AT A PRACTICAL COST!













Add a glamorous, purchase-inducing touch to your product at a cost that is practical. E-I Plastic Packaging is durable... washable... smart... compelling. These enduring cases can be tailored in any style of box, hard or semi-hard case, or completely flexible envelope, wrap or bag. Colors are exquisite solid tones or duo tones in any one or a combination of grains or patents.

Let E-I designers demonstrate how plastic packaging can add to the display and sales value of your products. You may find costs surprisingly low. Suggestions on styling and our estimate on cost will be supplied for your consideration without obligation.

LEATHER GRAINS	Box Calf, Cowhide, Pigskin, Pinseal, Alligator, Spanish, Morroco	Gauges: .020, .012, .008, .006, .004
TEXTILE GRAINS	Moire, Satin, Herringbone, Tweed, Plaids, Checks, Sharkskin	Gauges: .020, .012, .008, .006, .004
PATENTS	Metallic, Opaque, Prints, Polished Prints	Gauges: .020, .012, .008, .006, .004

Samples OF E-I PLASTIC PACKAGING are available for your inspection. Just write E-I Plastics Division mentioning the products you manufacture. Your inquiry will receive prompt attention.

Plastic Packaging Division

E-I

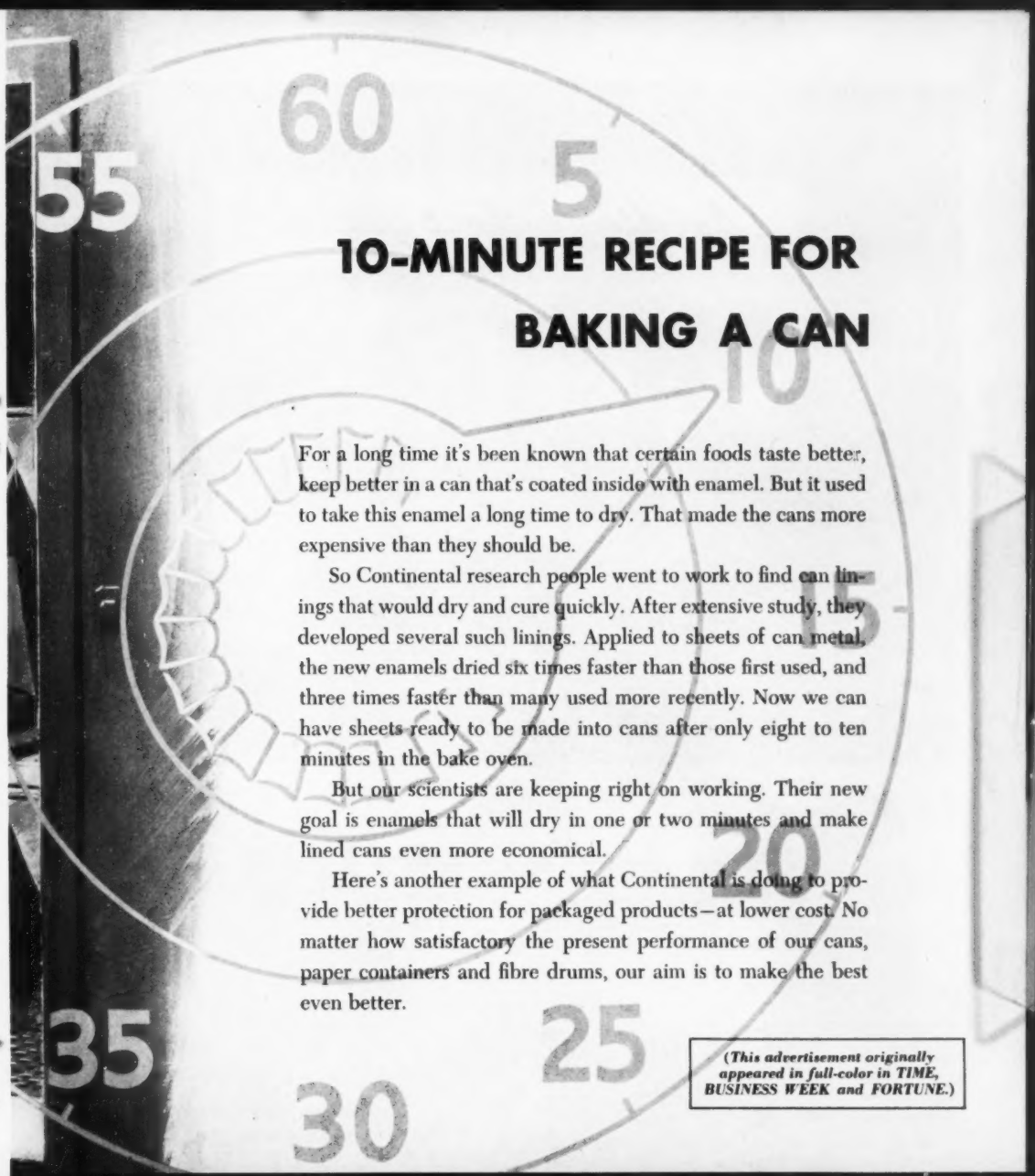
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You are always close to Continental Can with its 65 plants in the United States, Canada and Cuba, 17 field research laboratories and 63 sales offices.



10-MINUTE RECIPE FOR BAKING A CAN

For a long time it's been known that certain foods taste better, keep better in a can that's coated inside with enamel. But it used to take this enamel a long time to dry. That made the cans more expensive than they should be.

So Continental research people went to work to find can linings that would dry and cure quickly. After extensive study, they developed several such linings. Applied to sheets of can metal, the new enamels dried six times faster than those first used, and three times faster than many used more recently. Now we can have sheets ready to be made into cans after only eight to ten minutes in the bake oven.

But our scientists are keeping right on working. Their new goal is enamels that will dry in one or two minutes and make lined cans even more economical.

Here's another example of what Continental is doing to provide better protection for packaged products—at lower cost. No matter how satisfactory the present performance of our cans, paper containers and fibre drums, our aim is to make the best even better.

(This advertisement originally appeared in full-color in TIME, BUSINESS WEEK and FORTUNE.)

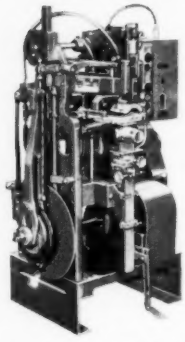
CONTINENTAL CAN COMPANY

CONTINENTAL CAN BUILDING — 100 E. 42nd ST., NEW YORK 17, N. Y.



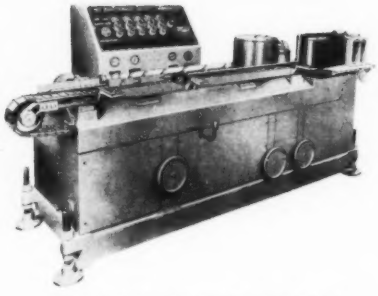
Labeling without glue—

Now!
The Newest Addition to the **Label-DRI®** family



The PONY *Label-DRI*
up to 60/min.

★
SEE IT AT THE PACKAGING SHOW-BOOTH #512—APRIL 1-4 ATLANTIC CITY, N. J.



The *Label-DRI* CHAMPION
up to 300/min.

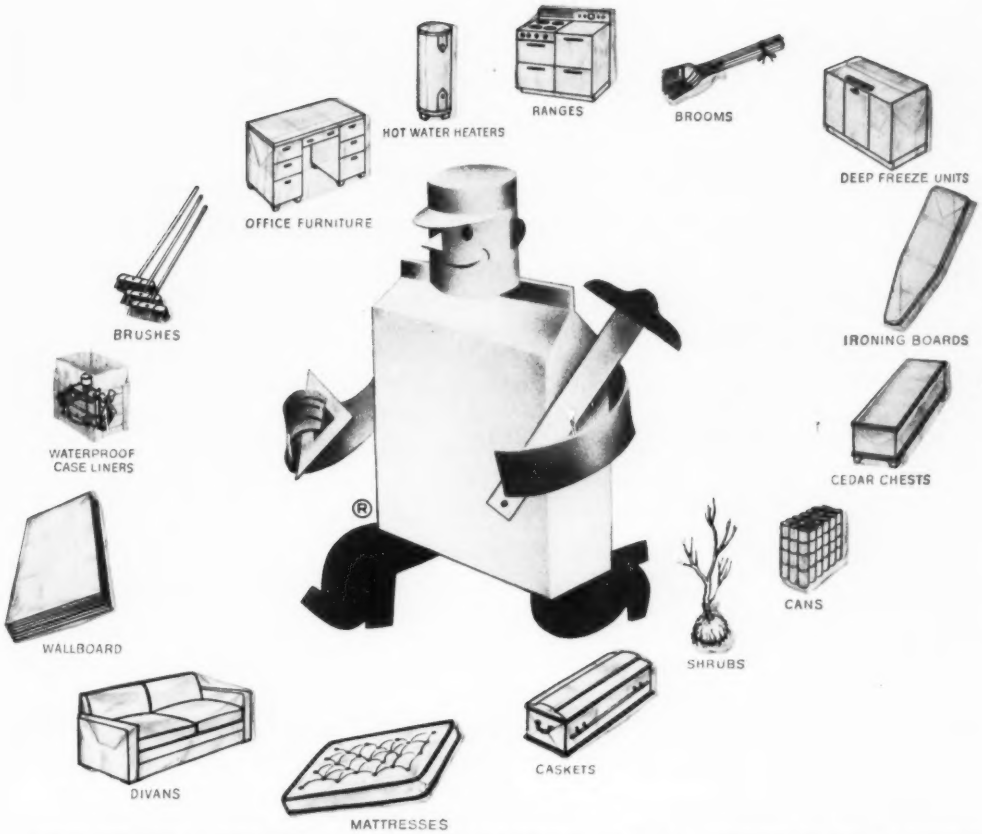
910

NEW JERSEY MACHINE *Corporation*

AUTOMATIC LABELING • PACKAGING — PAPER BOX MACHINERY • MAKERS OF THE PONY LABELRITE

FACTORY SALES AND SERVICE BRANCHES
325 W. HURON ST., CHICAGO 10, ILL.
1701 CAREW TOWER, CINCINNATI 2, OHIO
2500 W. 6TH ST., LOS ANGELES 5, CAL.

MAIN OFFICE & FACTORY: 1510 WILLOW AVENUE, HOBOKEN, N. J.



TAKES THE RAP OUT OF WRAPPING

BEMIS PAPER SPECIALTY MAN—He has more clever ways than a magician when it comes to cutting packaging costs. If you now wrap in paper, it's likely he can show you practical ways to convert to special paper bags . . . some with self-seal closures . . . that can save packing time in your plant and lower packing and shipping costs for you.

Shown here are just a few of the products that use Bemis paper specialty packaging to a big advantage. They illustrate the almost limitless versatility of Bemis engineers.

Bemis

BEMIS BRO. BAG COMPANY

Paper Specialty Plants
1054 South Vandeventer, St. Louis, Mo.
Albion, New York

MAIL THIS TODAY

BEMIS BRO. BAG CO., Paper Specialty Plant
1054 South Vandeventer, St. Louis, Mo.

Could you suggest a more economical package that would be suitable for our product?

We manufacture _____

Name _____

Firm Name _____

Street _____

City _____

Zone _____ *State* _____



"OPERATION PIGGY-BANK"

EVERYONE'S TALKING about "Operation Piggy-Bank." This inspired merchandising brain-child . . . sired by McKesson & Robbins, out of Crowell-Collier, with the blessings of 15 national manufacturers . . . has just broken in 11,000 drug stores and in 54 full pages in Colliers, American Magazine, and Woman's Home Companion during March. "Operation Piggy-Bank" was created to promote the sale of economy-size drug products, through the local drug store; and this little piggy has *really* gone to market.

A WORD ABOUT Gibraltar's contribution to "Operation Piggy-Bank." Three words, in fact: Design, Manufacture and Service . . .

WE DESIGNED a floor-stand and a five piece window-display to give star billing to *each one of 15 different products*. We manufactured both units to take plenty of punishment and still keep smiling. We use *only* super-sturdy corrugated board with the silken Gibraltar finish . . . We serviced "Operation Piggy-Bank" all the way: collated, packed and shipped 330,000 dummy packages, 11,000 window displays, 11,000 floor-stands and 275,000 "Operation Piggy-Bank" certificates. From the word "Go!" through delivery, less than seven weeks elapsed. That was good!

The manufacturers represented in "Operation Piggy-Bank" are:

Bauer & Black
Block Drug Co.
Bristol-Myers Co.
Emerson Drug Co.
International Cellucotton Products Co.
Johnson & Johnson
Lambert Pharmacal Co.
Lavoris Co.
Lever Bros Co. (Pepsodent Div.)
Miles Laboratories, Inc.
Pharmaco, Inc.
Serutan, Co.
Tampax, Inc.
The Mennen Co.
Wildroot Co., Inc.

WE'RE REAL PROUD that Gibraltar *MD** performed "Operation Piggy-Bank."

WANT TO TALK ABOUT YOUR OPERATION? Call or write for our brochure; it'll tell you all about Gibraltar *MD*.*

* **M**erchandising **D**isplay . . .



Lithographed sheets for center-piece of window-display and top copy panel of floor-stand, by Spurgeon-Tucker, N. Y. All installations by Haugan Adv., Inc., of Detroit, Mich.

● *See us at the*
POINT-OF-PURCHASE SHOW
WALDORF-ASTORIA
APRIL 1–2–3
BOOTHS A8 and A9

GIBRALTAR CORRUGATED PAPER COMPANY
8101 Tonnelle Ave., North Bergen, New Jersey
Telephone LOngacre 5-3405, N. Y. or UNion 3-4700, N. J.



Paper bag coated with Du Pont ALATHON* keeps meat fresh longer...cuts packaging costs

Moisture-resistant paper coating of "Alathon" retains flavor and color of meat . . . bags eliminate return shipping charges

Meat packers used to ship raw meat trimmings to sausage makers in returnable wooden barrels or one-use fiber boxes. But the costs of packing and shipping were high. And the meat sometimes lost color and flavor . . . even became rancid.

Then multi-wall bags, coated on the inside with Du Pont "Alathon" polythene resin, were introduced. These are 75 lb. capacity valve bags that are filled and weighed automatically. They cost less than half the price of one-use fiber boxes . . . eliminate return shipping costs in the case of barrels . . . and sausage makers find the bags easier to handle.

The coating of "Alathon" retains the natural juices of the meat because vapor transmission through it is extremely low. This preserves color and flavor, too. Because "Alathon" is so inert, it doesn't affect the meat (or other food) in any way—remains unaffected itself. And "Alathon" stays flexible under refrigeration . . . protects contents at temperatures as low as -70°F.

Paper coated with Du Pont "Alathon" has other packaging advantages. It is highly resistant to alkalis and acids. Blended with wax, "Alathon" produces a tough glossy coating for bread and other food wraps. "Alathon" can also be formed into many types of closures (screw-on, plug-type, etc.) and flexible bottles for a variety of products.

Investigate the many advantages of "Alathon" for your packaging needs. We will gladly assist you on development work. For further information, write:

E. I. DU PONT DE NEMOURS & CO. (INC.)
Polychemicals Dept.—District Offices:
818 Olive Street, St. Louis 1, Missouri
350 Fifth Avenue, New York 1, New York
7 S. Dearborn Street, Chicago 3, Illinois
845 E. 60th Street, Los Angeles 1, California

*REG. U.S. PAT. OFF.

DU PONT
REG. U.S. PAT. OFF.
150th Anniversary
Better Things for Better Living
. . . through Chemistry
Polychemicals
DEPARTMENT
CHEMICALS • PLASTICS

Plants and people

Robert Gair Co, Inc., New York, announces the purchase of the **American Coating Mills Division** of **Owens-Illinois Glass Co.** The contract of sale signed by both companies provides for Gair to take over the manufacturing plants, business and inventories of ACM April 1. This includes paperboard mills in Elkhart, Ind., and Middletown, O., and carton fabricating plants at Elkhart, Chicago and Grand Rapids, Mich. The manufacturing operations of Owens-Illinois devoted to making corrugated cartons are not included, according to company officials. American Coating Mills will be operated as a separate division, according to Gair officials, under the direction of **R. L. Sniderman,** president of ACM.

Robert Gair Co. also has started operations in a new shipping container plant located at Teterboro, N. J. Production



from the new plant is scheduled for corrugated box users in northern New Jersey and the metropolitan New York area, according to the company. The new plant is called the Teterboro Corrugated Box Division. It will be staffed by most of the plant and office personnel from the Bogota, N. J., division which will now manufacture solid fibre shipping containers and expendable paper pallets. **F. C. Costello** is manager of the new plant and **T. Kamish** is sales manager. The company's products development department under the direction of **J. D. Malcolmson,** will also be located in the plant, according to the company.

Kenneth C. Towe has been elected president of **American Cyanamid Co.,** New York. He succeeds the late Raymond C. Gaugler who died in January, 1952.

The company has also named **Fred J. Stickle** eastern regional sales manager of the coating resins department.

The territory now serviced by the New York branch office of **Forbes Lithograph Mfg. Co.,** Boston, Mass., has now been extended to include that of the Rochester, N. Y., branch office, according to a recent announcement. **R. M. Lawrence** is vice president and manager of the New York office.

R. N. DeWilde and **Russell J. Piltz** have been named New York and Chicago district sales managers respectively for **Kimberly-Clark Corp.'s** industrial cellulose wadding products divisions.

The election of **Edwin J. Spiegel** as president of the **Gaylord Container Corp.,** St. Louis, Mo., has been announced by **A. C. Goodyear,** chairman of the board of directors. Mr. Spiegel, vice president and treasurer of the company since its formation in 1937, succeeds the late president Clifford W. Gaylord. He will continue to serve as treasurer and as a member of the board and executive committee.



Mr. Spiegel

The company also announces the appointment of **Joseph M. Arndt,** vice president directing sales, to the executive committee.

National Starch Products, Inc., announces the awarding of a contract for a new research laboratory building on a site opposite its present plant in Plainfield, N. J.

Three executive appointments have been announced by **Olin Industries, Inc.,** cellophane producers. **F. S. Elfred** has been named executive vice president; **B. E. Bassett,** vice president for production and **M. W. Acker,** vice president responsible for the operations of five divisions set up to handle Olin's metals, explosives, arms and ammunition, electrical and export activities.

Hal W. Johnston, executive vice president and director of sales for **Stecher-Traung Lithograph Corp.,** Rochester, N. Y., was elected president of the Canning Machinery & Supplies Assn. for 1952. Mr. Johnston, who has been associated with the packaging and printing industries since 1909, is well known for his work in the Label Mfrs. National Assn. and the Packaging Institute.



Mr. Johnston

Executive promotions and changes have been announced by **Minnesota Mining & Mfg. Co. Louis F. Weyand** of Detroit has been promoted to executive vice president of the company. **Clarence B. Sampair,** vice president of Minnesota Mining & Mfg. International has been named president of that company succeeding **Robert W. Young** who has been named to the chairmanship of that organization's board. Mr. Sampair also retains his post as a vice president of the parent company. **John A. Borden,** vice president and general manager of the cellophane tape division, has been named sales and marketing consultant for all 3M tapes. The board of directors also elected **George W. Swenson** and **Hubert J. Tierney** vice presidents.

The company which is celebrating its 50th anniversary, has also announced the opening of a new regional sales office and warehouse building at 732 Ashby St., NW, Atlanta, Ga. **George E. Steck** remains as southeastern cellophane tape manager and **Russell D. Baird,** formerly office manager of the branch at High Point, N. C., has been named to a similar post in Atlanta.

The appointment of **James T. Kirkpatrick** as assistant to **Richard F. Neff, Sr.,** vice president in charge of sales, is announced by **Sutherland Paper Co.,** Kalamazoo, Mich., carton and paper specialties manufacturer. Mr. Kirkpatrick was formerly sales manager of the paraffined carton division. He is succeeded in that position by **Rex Paxton,** formerly divisional field sales manager of the division.



Mr. Kirkpatrick

For the convenience of its customers, **Lynch Corp.,** Toledo, Ohio, makers of packaging machinery, has opened a regional office at 207-211 E. 37 St., New York. The office which will stock emergency repair parts, is under the management of **D. E. Stenson** who has served as eastern sales manager for the Par Div. of Lynch for a number of years. He will be assisted by **R. N. Craven,** sales and service engineer. The company is also opening a similar office in Atlanta, Ga., and Chicago, Ill., as part of its program to provide better service to the growing number of users throughout the country.

Walter S. Joy, art and package designer with Shulton, Inc., toiletries firm, for the past 12 years, announces the opening of his own offices at 119 Greene St., New York.

Shawray Plastics Corp., New York, has been appointed a new converter and distributor for Goodyear's "Vinylfilm." Recently reorganized, the company is headed by **Edward Shaw** as president and **Arthur Blumenthal** as vice president and secretary. Shawray has announced that it will market their products under the trade name, "Colorbrite Plastic Fab-





Prompt relief from packaging problems

More and more manufacturers are recognizing the merchandising magic of a package that is quick to stop the eye . . . because that's when sales are made. H & D Merchandising Boxes are proving most effective in prompting purchases through eye-catching display. For example: this colorful display box for Mintglo not only provides product protection, but sets up easily, supplies excellent trade-mark identification, makes it sales point effectively, shows off the product to best advantage.

Whatever your product, whatever your packaging problem . . . the H & D Package Laboratory is at your service to provide a practical, economical solution. For the complete story on easier packing, better product protection, freight savings, "show boxing" display, write for the 14-volume "Little Packaging Library." Hinde & Dauch, 5209 Decatur Street, Sandusky, Ohio.



H&D

HINDE & DAUCH

Authority on Packaging

THE WORLDS LARGEST ANILINE PRESS

127" Wide, 93" Printing Repeat, "Power Impression"
Producing a Printed Sheet — 8 Feet x 10 Feet 7 Inches

A WOLVERINE HYDRO-PRINTER

3545 SEVEN MILE ROAD, EAST, DETROIT 34, MICHIGAN

Plants and people

ries." It will offer Vinylfilm printed in one to four colors by rotogravure process as well as surface prints in as many as 12 colors and as wide as 54 in. according to the company.

W. C. Curtis has been named to head a new sales division as sales manager for **Shellmar Products Corp.** Mr. Curtis, who has been with the company for 14 years will supervise sales in the areas covered by Pittsburgh, Cincinnati, Detroit and Mt. Vernon, O., sales offices. He plans to make his headquarters in the company's exective offices in Mt. Vernon.



Mr. Curtis

Potdevin Machine Co., manufacturer of bag-making, printing and coating machines, has recently moved into a new plant at 285 North St., Teterboro, N. J. The new building has manufacturing space of approximately 102,800 sq. ft., and is situated on a 6-acre tract which the company plans to use in expansion at a future date. Both sales and manufacturing offices are at this new address.

Walter Muskat has been named director of sales for **Triangle Packaging Machinery Co.,** Chicago. He succeeds **Rex Stone. Robert Strehlau,** formerly with Package Machinery Co., replaces Mr. Muskat as eastern sales manager. The company also announces the appointment of **Robert L. Muskat** as advertising and sales promotion manager.

International Machinery Corp., S. A., St. Nicolas-Waas, Belgium, announces the appointment of **William de Back** as vice chairman and managing director. Mr. de Back, vice president and director of Food Machinery & Chemical Corp., San Jose, Calif., which licenses International Machinery as a producer of its canning machinery, will make his headquarters in Belgium. The company is operated as an affiliate of FMC and is owned jointly by Continental Can Co., Inc., Dewey & Almy Chemical Co. and FMC, together with European interests.



Mr. de Back

Recent personnel changes announced by **Armstrong Cork Co.,** Lancaster, Pa., include the reassignment of **P. C. Lufburrow,** formerly resident sales representative in Grand Rapids, Mich., to Kansas City, Mo. and the transfer of **Thomas F. Bull** from Kansas City to the Detroit, Mich. office.

John R. Leaman, formerly supervisor of wholesalers for Armstrong's Philadelphia office, has been named manager of wholesaler operations for the drug sundries department.

The appointment of **Carl T. Collingham** as east coast representative for paper and paper products supplied by **Getz Bros. & Co., Inc.,** San Francisco, has been announced. Mr. Collingham has maintained his offices at 60 E. 42 St., New York.

The Dobeckmun Co., Cleveland, Ohio, announces the appointment of **Walter N. Wilhelm** as sales manager of the central division. Mr. Wilhelm has been with the company since 1947 in sales capacities and was with Container Corp. of America and Du Pont prior to joining Dobeckmun.



Mr. Wilhelm

Working with Mr. Wilhelm as district managers are **Daniel R. Moroney** in the Milwaukee, Wis., area and **Albert W. Thornton** in the Minneapolis-St. Paul, Minn., area. **John E. Powers,** formerly a sales correspondent in the Cleveland home office, has also been named a sales representative in the Milwaukee district.

Marathon Corp., Menasha, Wis., has named **Palmer McConnell** manager of sales promotion for its stock products group which includes household waxed paper rolls, napkins, paper pails and dishes and paper products for home and locker plant freezers.

C. J. Simpson has been appointed sales representative for the New England district of the **Canning Machinery Division, Food Machinery & Chemical Corp.**

Henry C. Joerger has joined the Specialties Div., **Sherman Paper Products Corp.,** Newton Upper Falls, Mass., as sales representative for the New Jersey territory.

Robert H. Askren, formerly packaging director of the New York office of **Raymond Loewy Associates,** has rejoined the company as a project director. He was recently associated with Robert Sidney Dickens, Inc., Chicago, packaging designer, as a partner.

The **Packaging Division** of **Reflectal Corp.,** manufacturers of waterproof case

Big Advance in Cushioned Packaging!

"SPEED-RAP"

The corrugated board with the wider kraft liner . . . now in rolls!



Two or three handy rolls of "Speed-Rap" in standard widths take the place of large inventories of cut-to-size sheets.

Space saving "Speed-Rap" rolls can be mounted beneath the work table and cut to length as needed. A simple metal former opens the paper flaps automatically . . . readies "Speed-Rap" for immediate use.

"Speed-Rap" won't knock holes in your packaging budget. It actually saves you money; helps you make neater, less bulky packages . . . faster.

CUSTOM LAMINATING AND COATING

We combine plastics, fabrics, foils and paper for functional and decorative purposes, including heat-sealing foil, jar cap liner stock, electrical insulation, aluminum foil and paper or board, and other made-to-order products.

MILITARY PACKAGING MATERIALS

We manufacture a complete line of barrier materials covering packaging specifications, including

MIL-B-131A	JAN-P-117	JAN-B-121
MIL-C-6056	MIL-E-6060	AN-B-20

THE FLOYD A. HOLES CO.

BEDFORD, OHIO

SALES OFFICES

BOSTON, CHICAGO, CINCINNATI, DECATUR, GA., DENVER, DETROIT, FT. WORTH, LOS ANGELES, NEW YORK, PORTLAND, SEATTLE, WICHITA

PARTITIONS FOR PROTECTIVE PACKAGING

MADE TO YOUR EXACT SPECIFICATIONS

WRITE, PHONE or WIRE for QUOTATIONS on YOUR REQUIREMENTS



PETER PARTITION CORP.

Manufacturers of Cardboard Partitions

19-21 HEYWARD ST. Telephone Triangle 5-4033 BROOKLYN 11, N. Y.

New Products Need Special Treatment *but*



. . . Jacques Kreisler's introductory promotion for their new FLIRTATION WATCHBAND achieved substantially greater color and dimension, thanks to this attractive little display. Designed for window or counter use, this unit carries one of the actual watchbands – and makes maximum capital of the "Pompadour" lady featured in Kreisler's national advertising. If you need a display that really registers your new product and its advertising, better have it . . .

Sales Engineered by

CONSOLIDATED Lithographing Corporation

MEMBER OF THE POINT OF PURCHASE ADVERTISING INSTITUTE

Main Office and Plant: Glen Cove Rd., Carle Place, L. I.

Sales Offices in Philadelphia, Chicago, Louisville and Tampa

Plants and people

liners and custom bags, has been purchased by **Greenwood Packaging Supply Co.**, E. Orange, N. J. Greenwood officials have announced that the name of the division has been changed to **Hollywood Bag Co.** Sales offices are located at 44 Hollywood Plaza, E. Orange.

O. C. Holland has been named director of advertising and sales promotion for the **Printing Ink Division** (IPI) of **Interchemical Corp.** Mr. Holland had been assistant director under the late **George Welp** for the past five years.



Mr. Holland

Two new assignments of personnel have been made Central District of IPI. **W. Sherman Ruxton**, who has been IPI's Chicago branch manager and district sales manager, will now devote all of his time to the latter. **Lambert H. Fish**, remembered by many printers as the man who introduced them to the famous IPI Match-box, has been named branch manager.



Mr. Fish (left) and Mr. Ruxton

Union Bag & Paper Corp., New York, announces the appointment of **R. Carl Chandler** as director of Corrugated Container Sales. Mr. Chandler formerly was eastern sales manager for the corrugated container division.

Raymond H. Finley, Jr., formerly sales representative in the Chicago office has been named sales supervisor for the company's Kansas City, Mo., office.

Aluminium, Ltd., Montreal, Canada, announces the beginning of construction on bauxite-alumina production facilities in Jamaica, B. W. I. As part of the company's development program to increase the supply of aluminum, this plant is having its planned capacity increased from 200 short tons to 500 tons of alumina per day. A further enlargement to 740 tons per day is called for as a future development. Construction of this extracting plant, it is reported, will reduce shipping costs more than 50%. First production of Jamaica alumina is expected to commence



To men dissatisfied with their packages

If your present package is not delivering all you want in the way of merchandising and product protection, let us tell you what you can do with packaging materials plasticized with Monsanto Santicizer 141, Santicizer E-15 or Santicizer B-16.

These plasticizers have been accepted as nontoxic by the Bureau of Animal Industry of the United States Department of Agriculture. That means that they are safe to use in packages for foods.

Santicizers 141, E-15 and B-16 are compatible with a variety of resins used to make packaging film, including polyvinyl chloride and copolymers, cellulosic resins, rubber-based resins—in fact nearly all commercially available film-forming materials.

By choosing from these plasticizers, you can achieve packages that are clear, odorless, tasteless . . . that are strong and tough . . . that resist moisture and retain flexibility at low temperature.

For data on these and other Monsanto Plasticizers, and for technical assistance, contact the nearest Monsanto Sales Office or write MONSANTO CHEMICAL COMPANY, Organic Chemicals Division, 1700 South Second Street, St. Louis 4, Missouri.

Santicizer: Reg. U. S. Pat. Off.

SANTICIZER

MONSANTO
CHEMICALS – PLASTICS

SERVING INDUSTRY . . . WHICH SERVES MANKIND

rotogravure costs less

when you take these precautions

1 THE RIGHT PRODUCTION INFORMATION

Make sure your package designer or artist thoroughly understands the production involved in rotogravure cylinder engraving, so he can correctly prepare his artwork.

2 PLANNED SUGGESTIONS FOR ECONOMY

Let us make suggestions from your layout before you proceed to do any final artwork. As a result of our mutual planning at the production stage the entire rotogravure job will be economical at the printing stage.

3 OF COURSE QUALITY THROUGH SKILL

Be assured, when you select us to engrave a cylinder for your rotogravure printing, that you have engaged highly skilled rotogravure engravers. We are always dedicated to the quality that arises from the results of sincere endeavor. Our skill is directed to give you the very finest and economical rotogravure engraving.

PROOFING SERVICE . . for National Ads and Cylinders

FOR ANY GRAVURE INFORMATION. For any production information or suggestions don't hesitate to telephone or telegraph collect.

The rotogravure engraving has to be the strongest link in your rotogravure chain

acme gravure services, inc.

1501 West Congress Street · Chicago 7, Illinois · CHesapeake 3-1377

YOU CAN ELIMINATE ALL STATIC



WITH THE HERBERT

Oxy Neutralizer "Cold" Bar

NO ARC!

NO SHOCK!

NO SPARK!

Improve quality of production and increase output—avoid paper jams—improve register and jogging by *complete* static elimination with the *Oxy Neutralizer Cold Bar*—this easily installed, *safe* device is endorsed by leading printers and converters. Beat high production costs by curing "static expense."

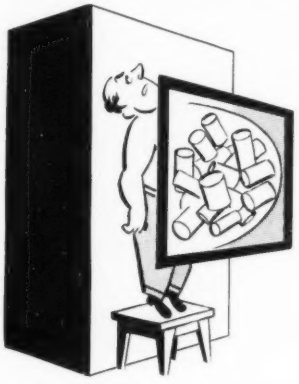
Sends us details of any press which causes you trouble. We'll submit recommendations without obligation.

HERBERT PRODUCTS Inc. 74-30 JAMAICA AVE. WOODHAVEN 21, N. Y.

DO YOU HAVE THIS

BELLY-ACHE?

Is Your Warehouse Loaded With Unwanted Tin Cans?



We can help to liquidate your surplus tin cans, or, should you have need for "cans in a hurry," we stock most sizes of general line cans and can make immediate shipment. Sealing machines supplied also.

R. FREUND & CO. 4441 COTTAGE GROVE AVE., CHICAGO 15, ILLINOIS

It will pay you to save this ad for future reference.

Plants and people

in the third quarter of this year, while the enlarged plant is scheduled to go into operation in late 1953.

The KVP Co., Ltd., Espanola, Ont., Canada, announces production of vegetable parchment paper has begun in a



new building at its sulphate pulp mill in Espanola that was built in 1946. The parchment is made on a Pusey Jones paper machine which has been installed. The paper is currently being supplied to Appleford Paper Products, Ltd., Hamilton, Ont., converters and printers, but will be available to other Canadian converters, according to the company.

Oneida Paper Products, Inc., Clifton, N. J., has named **Olsen & Anderson Co.,** Chicago, sales representatives for the Chicago area.

To handle the sales of plastic containers manufactured by the Injection Molding Co., Flexcel Container Co. and Excelsior Plastic Co., all of Kansas City, Mo., the **Imco Container Corp.** has been formed with offices at 3823 Independence Ave., Kansas City. **W. K. Archer** is president.

W. A. Rike has joined the staff of the **Pollock Paper Corp.,** Middletown, Ohio, as a printing and design advisor.

Fred Mann & Co., Inc., designers and fabricators of transparent packaging and plastic specialties, have moved to new quarters at 360 West 50 St., New York 19.

Arthur Wesson has been named controller of **Milprint, Inc.,** Milwaukee, Wis., converter and packaging supplier. Mr. Wesson was formerly treasurer and a director of Nu-Enamel Corp.

Television stations in more than 50 cities affiliated with the National Broadcasting Co. have presented a documentary film which features Milprint, Inc.'s manufacturing operations and products during the past month. The film, "Industry on Parade," made by NBC for the National Assn. of Manufacturers as part of a feature newsreel series, is just one of the kudos which have honored the company. A number of samples of the work done by Milprint were chosen for exhibition as part of a Graphic Arts & Advertising Guild display now being shown at the art galley of the public library in Milwaukee, Wis.

In recognition of his work with its organization, the International Printing Pressmen & Assistants Union (AFL) recently named **William Heller, Sr.,** chairman of the board of Milprint, an honorary life member. Mr. Heller was cited, when a plaque in symbol of the honor was presented, "for promoting the progress of printing in the United States, for his foresight and for his friendly attitude toward the pressman's union."

Otis G. West, sales representative for **Fulton Bag & Cotton Mills,** Atlanta, Ga., for more than 20 years, has been transferred back to the company's New Orleans branch from Los Angeles.

Midland Glue Products Co., Detroit, Mich. announces the change of the company's name to **Midland Adhesives & Chemical Corp.** The change is being made in conjunction with the company's move to a new plant and office at 2600 Goodrich, Ferndale, Mich.

Howard Plastics, Inc., Kansas City, Mo., announces the appointment of **A. S. Hoffman** as vice president in charge of sales, promotion and advertising. **Fred K. Petersen** succeeds Mr. Hoffman as sales manager. Mr. Hoffman joined Howard Plastics in 1944 and participated in the company's development of its line of polyethylene products for the packaging trade.



Mr. Hoffman

Gaetjens, Berger & Wirth, Inc., Brooklyn, N. Y., manufacturers of printing inks, has named **William M. O'Hara, Jr.,** manager of the company's metal decorating division.

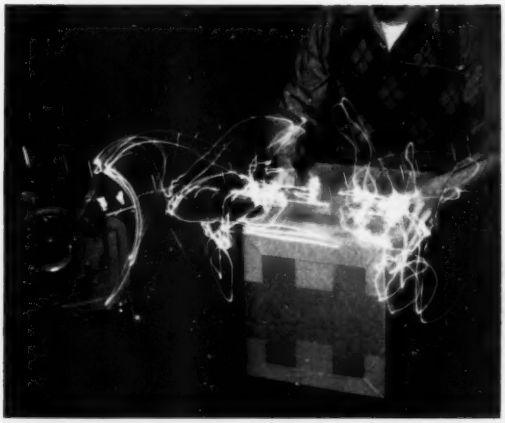
Avery Feiler has been elected vice president of **Perkins-Goodwin Co.,** New York pulp and paper marketing and management organization.

A. Lee Gordon, Jr. has been named manager of the mid-south district for **National Container Corp.,** New York, manufacturers of shipping cartons and multiwall bags. He will make his headquarters in Memphis, Tenn.

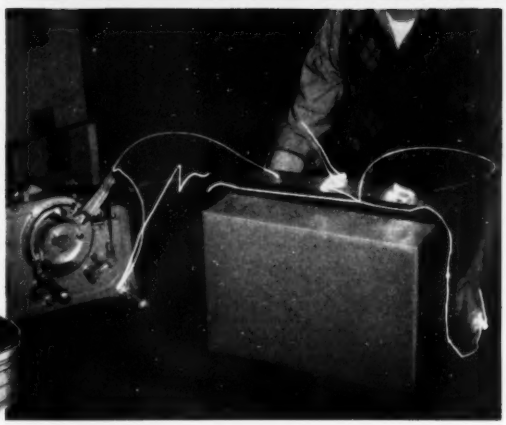
William E. Knappman, well-known research authority on paint and finishes, has joined the **United Lacquer Mfg. Corp.,** Linden, N. J., as technical direc-



How Snake Tape Seals 2/3 faster stronger, cheaper



38.5 seconds was average sealing time required to apply 6 strips of non-reinforced gummed tape. *(Lights mounted on shipper's hands made it possible for photos to show motions used in sealing cartons.)*



11 seconds was average sealing time with only 2 strips of Angier Snake Tape. Yet, closure is *stronger* because reinforcing yarns (A) give strap-like strength. Asphalt bond (B) makes Snake Tape waterproof. Money can't buy better animal glue (C)



Angier

Snake Tape is Reinforced!

ANGIER CORPORATION, FRAMINGHAM 11, MASSACHUSETTS

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Plants and people

tor. Mr. Knappman is a part-time consultant to the U. S. Army Quartermaster Corps on protective organic finishes and a member of ASTM.

Edward P. Stuart, recently assistant New York district sales manager for the **Crown Can Co.,** Philadelphia, has been named sales manager of the company's Spra-Tainer and beverage can divisions. Mr. Stuart will make his headquarters at Crown's executive offices in Philadelphia.



Mr. Stuart

W. L. Patrick, sales representative for **Chase Bag Co.,** Chicago, for 33 years, has retired. Recently, Mr. Patrick made his headquarters for the company in Boise, Idaho. He is succeeded by **R. F. Rhoden.**

Two personnel changes are announced by the company. **Eugene P. Alexander,** formerly a sales representative in the Cincinnati office, is now with the Detroit office. **D. L. Herrick,** formerly at the Milwaukee branch succeeds Mr. Alexander in Cincinnati.



Mr. Massingham

Oliver Machinery Co., Grand Rapids, Mich., announces the appointment of **Sherman H. Massingham** as sales manager of the packaging and label division. Mr. Massingham has been with the Oliver company since 1947.

Philip W. Hatch, formerly manager of glass container sales for Ball Bros. Co., Inc., has joined **Thatcher Glass Mfg. Co., Inc.,** Elmira, N. Y., in an executive capacity.

The company also announces the election of three new officers and two new directors: **Robert M. DeGarmo** was elected vice president in charge of the production service departments and **Reginald L. Burd,** vice president in charge of the production engineering department. **Arch W. Wood,** formerly president of McKee Glass Co. which recently merged with Thatcher, was elected a director as was **W. A. Wood,** also formerly with McKee. Mr. Wood has been named vice president in charge of the McKee Glass division of Thatcher.

Dewey & Almy Chemical Co., Cambridge, Mass. announces the election to the board of directors of **Robert T. Haslam,** formerly a vice president and direc-



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BOX BY

Noble

The World Famous

Parker "51" Pen Set is appropriately displayed in a Noble Box designed particularly for this fine product.



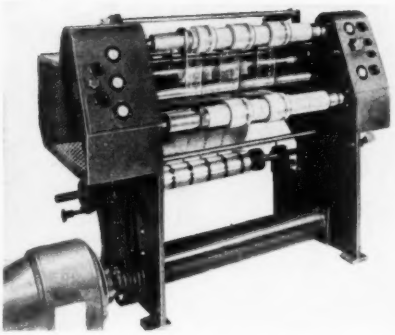
Your product of which you are justly proud, can, as has been done with these famous and popular name articles, be packaged for sale and display in a beautiful box designed and made for you alone. You are invited to consult us regarding the proper boxing of your merchandise. Our many years of experience and manufacturing ability are at your service - Write us for plans and estimates - Without cost.

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YOU CAN'T BUY A BETTER SLITTER FOR THREE TIMES THE PRICE



What do you want in a slitter? Precision performance? Ease of operation? Rugged construction? Low cost?

It's these things that make the Dusenbery Model 585 so outstanding. There are no fancy high-priced doodads beyond the controls essential to guarantee precision slitting and even-tension winding of films, tapes and foils.

The clutch control, brake and mandrel locks are air operated. All dials and controls are *right up front* where you don't have to be an acrobat to see and use them.

The Dusenbery Model 585 Slitter comes in 32", 42", 52" and 62" widths. Because it's a top-notch performer that's priced *low*, you should know more about it.

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DIAMOND TUBES and Containers—the efficient and economical answer to so many production problems.

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32-36 West 18th Street New York 11, N. Y.

Plants and people

tor of Standard Oil Co. (N.J.) where his responsibilities included direction of research and sales. He is a recognized authority on petroleum technology.



Mr. Moneghan

Roy Moneghan has been appointed division manager of the Flint plant of **The Ottawa River Paper Co.**, Toledo, Ohio. Mr. Moneghan, production superintendent of the Flint plant since 1949, will be in charge of both production and sales.

Frank W. Winne & Son, Inc., Philadelphia twine and cordage distributors, has recently instituted a new division of the company known as **Winco Printed Tape Department**. This division is now handling all types of pressure-sensitive tapes, it is reported, and has facilities for printing and converting.

Charles Winkelman has been appointed to a newly created position of director of industrial engineering for plant operations at **The Gardner Board & Carton Co.**, Middletown, O.

Construction of a new plant for **Printed Cellophane Tape Co.**, Los Angeles, Calif., manufacturers of printed pressure-sensitive tapes for packaging and display materials, has been completed recently and the company has moved into its new quarters. The new address for the company is 521 N. La Brea Ave., Los Angeles 36.

Louis S. Kimball has been appointed president of the **Angier Sales Corp.**, recently re-established to handle the sales of all industrial packaging and building papers manufactured by Angier Corp., Framingham, Mass. Mr. Kimball is also a vice president and director of the manufacturing firm.

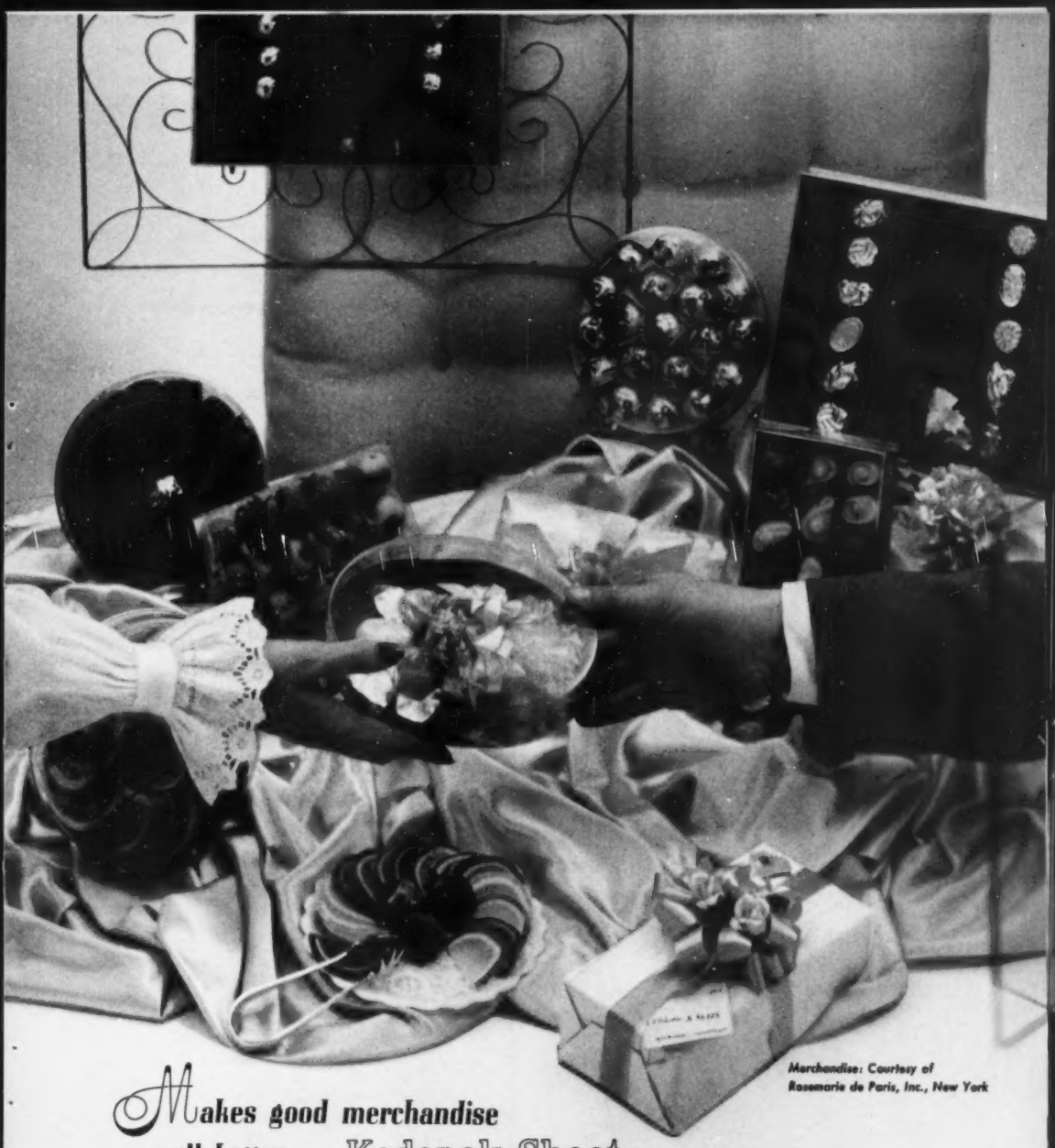


Mr. Kimball

Bert Klausner has joined the staff of **Paramount Paper Products Co., Inc.**, Philadelphia, as a packaging specialist.

George K. Van Kleeck has been appointed plant manager of **Continental Can Co.'s** Portland, Ore., metal container plant.

Other recent personnel changes announced by Continental are: **H. E. Brockett** to the position of director of the crown and cork division; **James B. Jack** as defense contract manager of the eastern division; **G. H. Scott** as sales manager



Merchandise: Courtesy of Rosemarie de Paris, Inc., New York

Makes good merchandise sell better . . . Kodapak Sheet

"Kodapak" is a trade-mark

Candy that's been packaged in tough, transparent Kodapak Sheet is something apart . . . brilliantly visible, alluring—*clearly untouchable.*

Stores give candy like this top display. Sales people show it . . . customers see it—want it—buy it, knowing right well that quality and purity have been protected.

For further information, please consult your local representative or write:

Cellulose Products Division
Eastman Kodak Company, Rochester 4, N. Y.

Sales offices in New York, Chicago, Dallas. Pacific Coast distributor: Wilson & Geo. Meyer & Co., San Francisco, Los Angeles, Portland, Seattle. Canadian distributor: Paper Sales Limited, Toronto, Montreal.

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YOU CAN'T SELL 'TILL YOU GET **INSIDE OUT**

Cartons that don't move, don't sell! Stencil marking gives name and direction to your cartons . . . gets them on their way and insures safe delivery . . . to be opened and their contents sold. Stenciling does it easily, speedily and inexpensively. So, get the inside to the outside . . . and sell!

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Matthews will produce metal stencils with any desired lettering, design or trademark . . . in any quantities you need.



BRUSHES
Matthews supplies every size and kind of stenciling brush . . . to do the job the right way.

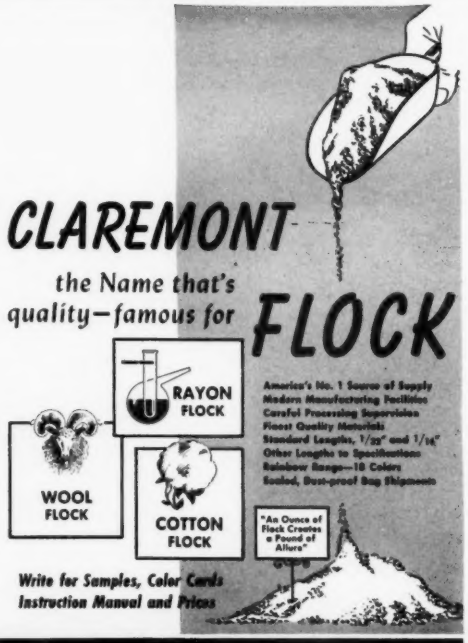


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Cut your own paper stencils economically and speedily on a Matthews Stencil Machine . . . from Matthews Stencil Board.



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Stenciling inks for every application, in a variety of colors . . . packaged in half-pint to 55 gallon containers.

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CUT COSTS — COST LESS TO BUY
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— SPEED PRODUCTION

Manufactured to Meet YOUR Specific Requirements!

Be Sure To Discuss YOUR Problems With US!
at
THE NATIONAL PACKAGING EXPOSITION
Atlantic City—April 1-4
BOOTH-1101

INDUSTRIAL TAPE DIVISION
HAMPTON MANUFACTURING CO.
NEW ROCHELLE, NEW YORK

Plants and people

of the fibre drum division for the eastern area; **James N. Simons** as sales representative in New York State and reassignment of **E. W. Freeman, B. B. Gordon** and **J. DeBliek.** Mr. Gordon, formerly assistant plant manager in Passaic, N. J., replaces Mr. Freeman as plant manager, the latter now being on a special assignment in the eastern division. Mr. DeBliek, who was foreman of the press department at the Passaic plant, has been named assistant plant manager.

Cort Majors, general sales manager of **Fibreboard Products, Inc.,** San Francisco, Calif., has been elected vice president of the company.



Mr. Majors

The company also announces the establishment of a Timber Division with headquarters at 1789 Montgomery St., San Francisco. **C. L. Morey** has been named manager of the division.

Roe S. Clark has been elected president of **Package Machinery Co.,** Springfield, Mass., succeeding **Roger L. Putnam** who is now on leave of absence in Washington, D. C., as director of the Economic Stabilization Agency. Mr. Clark joined the company in 1916 and has served in various capacities. He was elected a vice president and director several years ago. In recent years he has acted as chairman of the company's executive committee.



Mr. Clark

Bird & Son, Inc., E. Walpole, Mass., paper products manufacturers announce the appointment of **Harold R. Bonnyman** as sales manager of the container department. Mr. Bonnyman, formerly assistant sales manager, succeeds **L. S. Wright** who resigned to become assistant to the president of **Hopper Paper Co. Benjamin Beale,** formerly a sales representative of the company's solid fibre and corrugated box department, has been named new assistant sales manager.

The election of **Murray Stempel** as executive vice president and **George J. Muller** as president of **Morningstar, Nicol, Inc.,** New York, and its subsidiary company, **Paisley Products, Inc.,** has been anounced.

The company has also recently an-

Plastics
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ACM CARTONS!

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National Packaging Exposition
Atlantic City—April 1-4, 1952

ACM Cartons are the leaders in the folding carton field because each ACM Carton must meet rigid American Coating Mills specifications, covering both quality of the boxboard and true color reproduction. Smart, colorful cartons are recognized as the greatest selling aid in today's modern merchandising.

The facilities of ACM assure you a complete development and processing operation for your carton problems, from the boxboard—made in our own mills in Indiana and Ohio—to the finished carton printed on our clay-coated board on our modern high speed equipment. Write, wire or phone for an ACM no-cost consultation today!

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AMERICAN COATING MILLS

ACM CARTONS BOXBOARD

Subsidiary of Robert Gair Company, Inc.
General Offices, Board of Trade Bldg., Chicago 4, Illinois
Offices in Principal Cities

Plants and people

nounced the purchase of **Layton Elastic Glue Co.**, Chicago, which will be operated as a subsidiary of Paisley under the direction of **Earl Lenz,** general sales manager and vice president of Paisley.

Stanley Hurwitch has joined the eastern sales staff of the **Empire Box Corp.**, Garfield, N. J.

A. E. Marconetti, president of **A. E. Marconetti, Inc.,** died suddenly in New York Feb. 17. He was 53. He had cut short a trip to Europe because of illness and returned to New York only a few days before, but his death was entirely unexpected. Mr. Marconetti for many years had been the Eastern sales agent for **Kidder Press Co.** and he was one of the best known men in the packaging and graphic arts industries.



Mr. Marconetti

Allen A. Gordon, president of **Gordon Cartons, Inc.,** died in Baltimore, Md., recently. Mr. Gordon, whose father founded the company, was 44 years old. During his tenure of office the company expanded substantially with plants being constructed in Portsmouth, Va., Littlestown, Pa., Rockford, Mich. and Jacksonville, Fla.

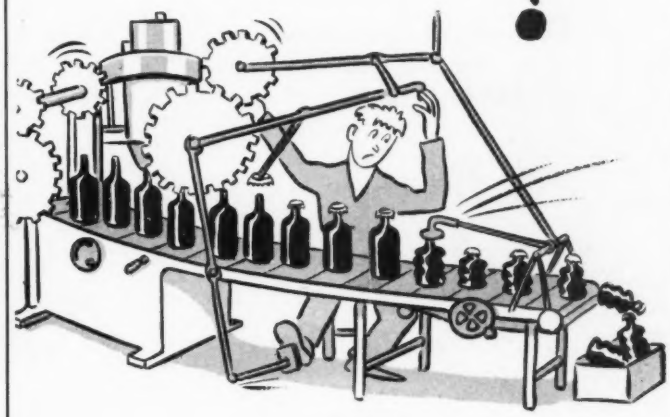
Carl C. Giles, president of **Phoenix Metal Cap Co.,** Chicago, died recently at the age of 75 in Bradenton, Fla. He was prominent in the glass packaging industry for more than 50 years, having entered the business under the direction of his father, the late John S. Giles, who was with Safe Glass Co., the parent organization of Phoenix Metal Cap.

Ladislas Medgyes, well-known art director of **Helena Rubinstein, Inc.,** New York, died recently of a heart attack. Born in Budapest, Hungary, a graduate of the University of Budapest and the Sorbonne in Paris, Mr. Medgyes was noted as a painter, stage director and lecturer both in Europe and America. He joined the company in 1935 as art director and was responsible for a number of package designs there which were cited for their excellence in packaging competitions.



Mr. Medgyes

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at

BOOTH #1250

NATIONAL PACKAGING EXPOSITION

Atlantic City, N. J.

APRIL 1-4

Tops them all

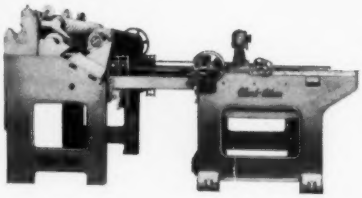
RESINA

AUTOMATIC MACHINERY CO., INC.

Brooklyn 31, New York

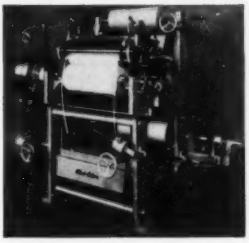
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with the Clark-Aiken Type D Economy Cutter-Layboy Unit—designed for sustained operation and sustained accuracy with negligible spoilage. Built like big mill-type sheeters for long, trouble-free service in high-speed operation. Many features found on no other cutters.

how to slit paper, foil, cellophane or fabric tape faster and more economically



with the Clark-Aiken Goebel-Type Tape Slitter and Rewinder—embodying many new developments for greater speed and accuracy, lower operating and upkeep costs.

both in operation at

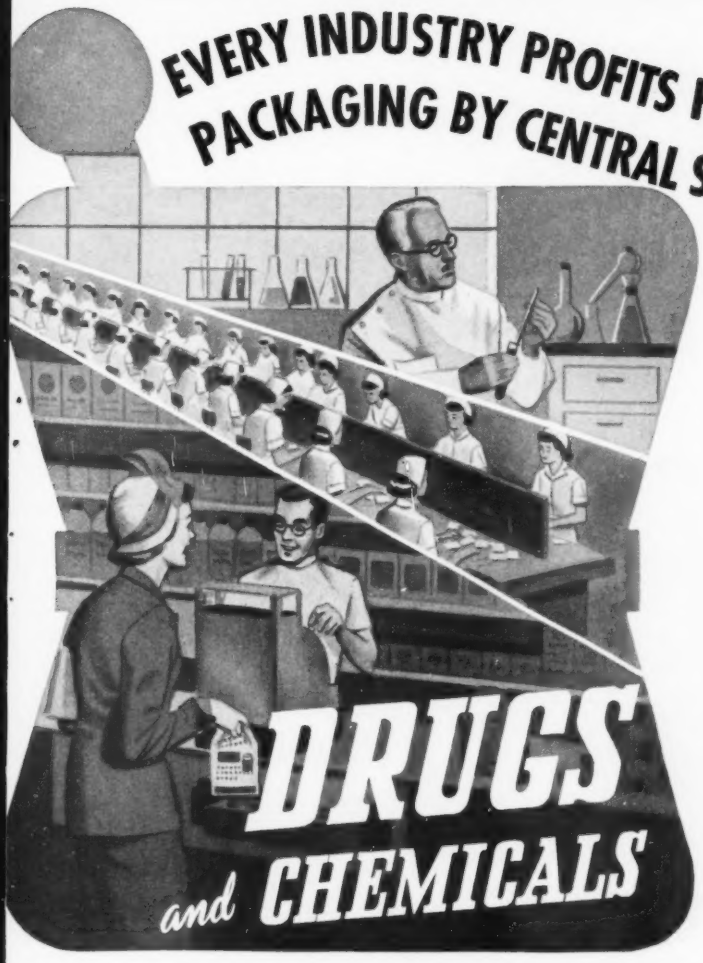
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National Packaging Exposition

Atlantic City • April 1-4

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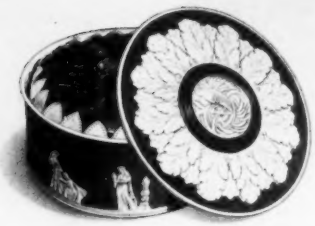
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Fruit Cake? Tea? Tobacco?
Stage your product in a Guildcraft Production.



Ward "Paradise" Fruit Cake



Jewel Tea Caddy

Borden Cheese
Christmas Chest
Size: 13x11½x4½"



Genuine Needlecraft?
No, but lifelike reproduction.

You can package Your Product in a Functional Guildcraft Production—for "Front Row" Merchandising at Nominal Cost!

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FOR SELLING & GIVING

FRENCHTOWN
NEW JERSEY



Cigars? Cigarettes?
Guildcraft makes a dramatic setting

Old Gold Treasure Chest

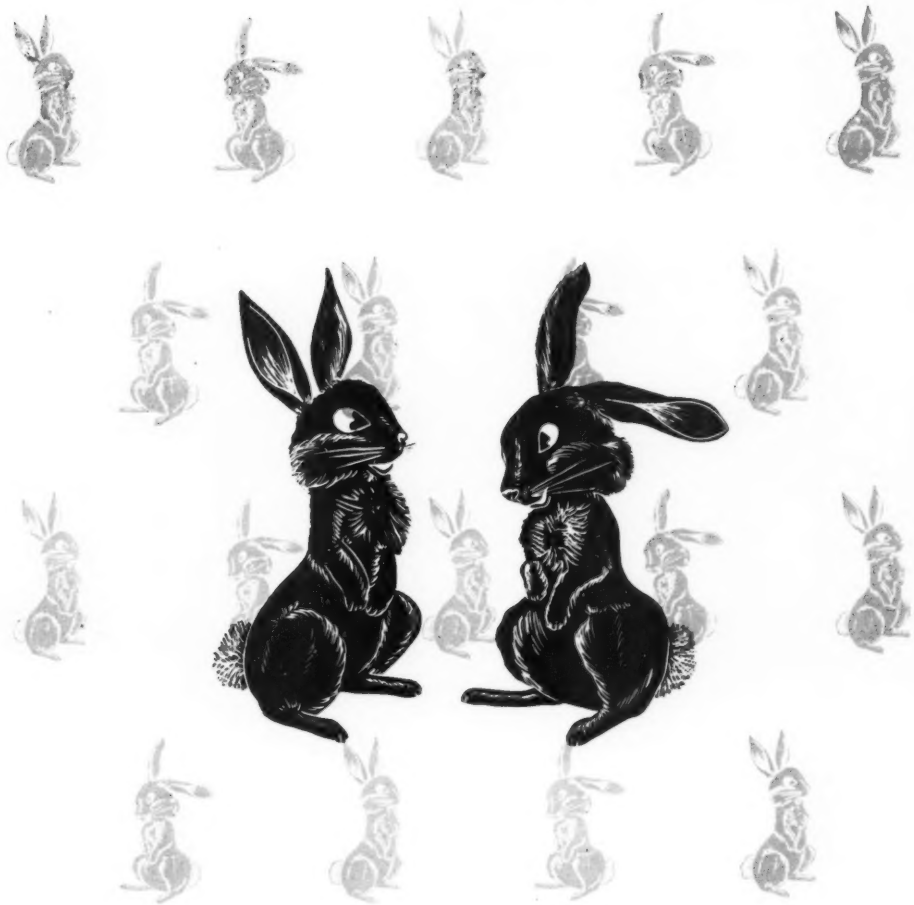
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The "Front Row" display for every product.



Wilson "Hol-Hi" Golf Balls

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A-25 BOTTLE LABEL GLUE

A truly non-crystallizing, fast tacking, clean working dextrin glass labeling glue for a perfect, permanent label job. You can label even difficult opal glass and be sure that the labels are on to stay. No falling labels . . . no curling at edges . . . no crystallizing . . . no staining . . . no wrinkling.



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A low cost resin adhesive especially formulated for the manufacture of spiral and convolute containers for coffee and other hot and cold liquids. Exceptionally fast setting so that it can be used on high speed machines. Containers made with Liquid-Tite #69 pass standard tests for resistance to boiling water.



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Fast setting even on difficult stocks. Runs smoothly, tacks quickly, and has excellent penetrating properties. It is non-throwing, non-stringing, non-warping. The use of PN Carton Glue assures sift-proof cartons.



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TRANSPARENT WINDOW GLUE 17W

A vast improvement over lacquer type adhesives. It's ideal for use on Staude, International, and F. L. Smithe window patch machines. Operates cleanly, tacks immediately, and holds permanently. It's water-miscible and will not bleed the ink. Available either in the natural white or with a green pigment to show the glue line. Ideal for Lumarith, Kodapak, Sylvania PMS and Dupont CA, LT, MP & MST Cellophane Windows.



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Brilliant engineering in Colton's new equipment has sent it rocketing to new heights of leadership in the tube-filling field—where Colton has always led.

The new units provide exact accuracy of measure, continuous high speed, quick cleaning, quick adjustment to new sizes and change-over to cans, tubes or jars, complete versatility embracing liquids, semi-liquids, pastes from water-thin to thick and ropey.

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Booth 801
National Packaging Exposition
Atlantic City
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COLTON TUBE FILLER

Standard or Stainless Steel
No. 130
(Hand Operated)

Fills tubes, jars, cans, bottles. Max., 30 tubes a minute; sizes up to 1½" x 7½" by pressure or by gravity feed. Standard or stainless steel contact parts.





COLTON GEAR-TYPE TUBE FILLER

No. 130
(For Pastes and Creams)

Fills tubes, jars, cans, bottles. Max., 50 tubes a minute; sizes up to 1½" x 8". Stirring device and heating jacket extra. Very successful with heavy materials.

COLTON POWER TUBE CLOSER AND CRIMPER

No. 428

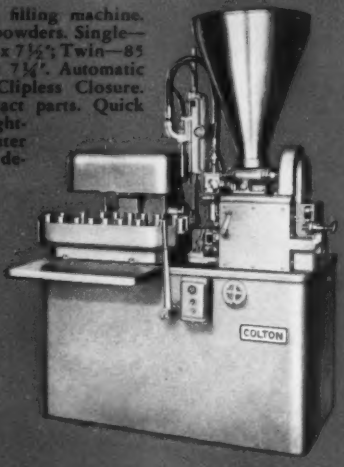
Produces the double fold only, crimped. Max., 40 tubes a minute; sizes up to 1½" x 7". Widely used where fully automatic equipment is not required.

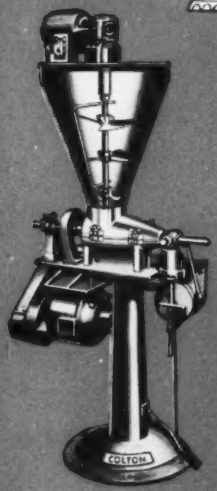


COLTON AUTOMATIC TUBE FILLER AND CLOSER

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World's most widely used tube filling machine. Handles pastes, creams, liquids, powders. Single—55 tubes a minute, sizes up to 1½" x 7½"; Twin—85 tubes a minute, sizes up to ¾" x 7¼". Automatic work cycle. Produces Colton Clipless Closure. Standard or stainless steel contact parts. Quick change-over. Tube cleaner, cap tightener, stirring device, heated water jacketed hopper, no-tube-no-fill device, all available at extra cost.

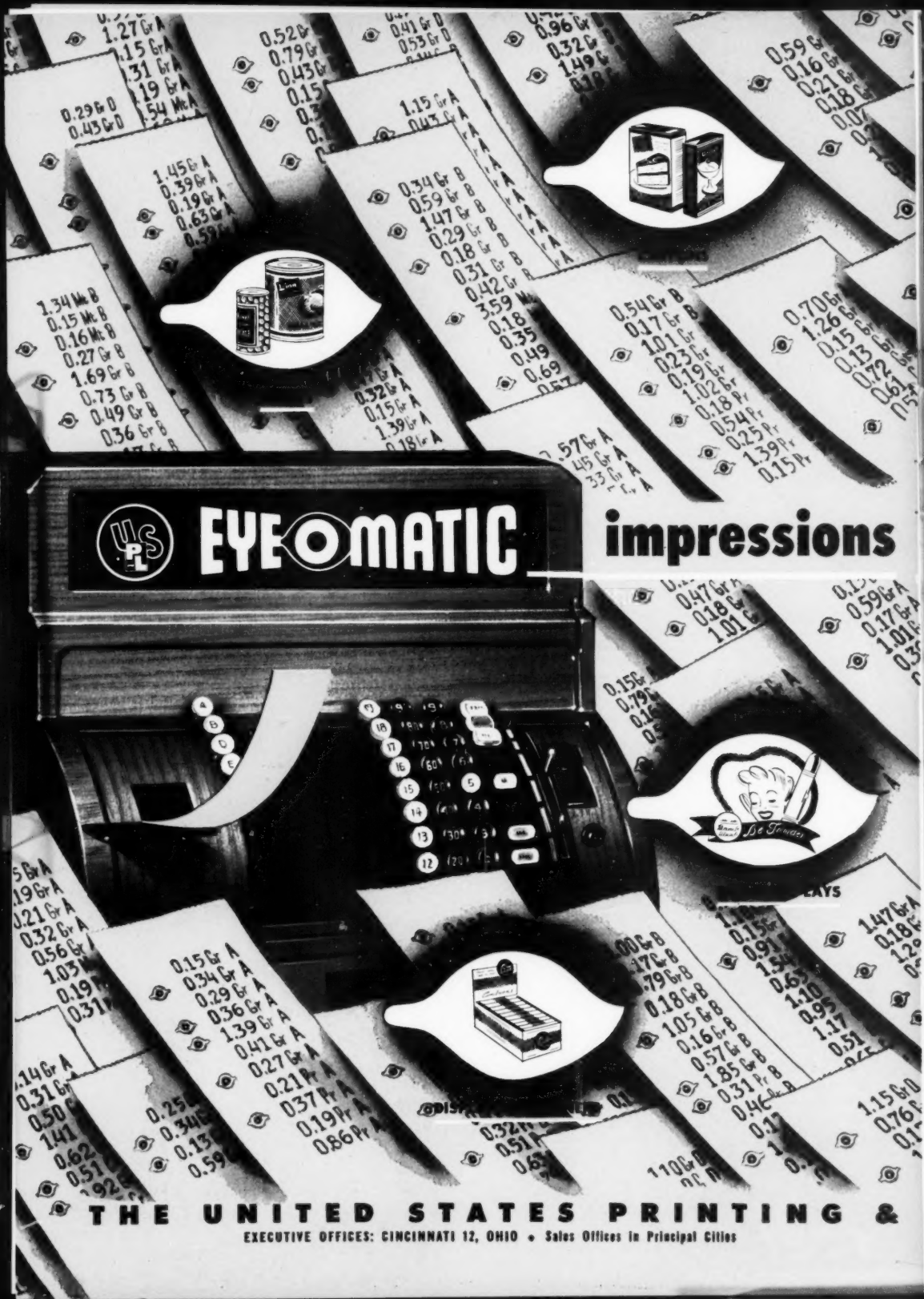




COLTON WORM-TYPE TUBE FILLER

No. 140

Fills tubes, jars, cans, bottles. Max., 50 tubes a minute; sizes up to 1½" x 8". Especially engineered for pastes. Stirring device and heating jacket extra.


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HERE IS THE PAY-OFF!—zillions of little cash register tapes, every day. Each a mute evidence that **EYE-O-MATIC COLOR** is on the job—catching eyes, winning interest, creating desires, stirring emotions, and causing buying hands to reach, take and pay for.

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and inspect typical specimens of EYE-O-MATIC advertising and packaging materials; you'll find ideas, suggestions and superb art work and design, in flawless reproduction, emanating from some of the world's keenest specialists in the preparation and use of sales building materials.

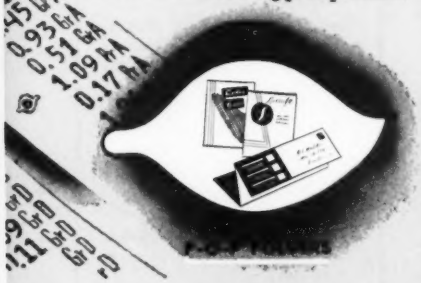
PAYOFF at POINT of SALE

THAT'S THE DAILY STORY of big-volume marketing—involving the products of hundreds of U-S customers, whose mounting sales are supported by all the forms of **EYE-O-MATIC** packaging and advertising materials.

THE POINT-OF-SALE is the point of focus for every successful product. Hundreds of manufacturers have used **EYE-O-MATIC** selling support for many years—in the form of labels, folding cartons, point of purchase displays, outdoor posters, calendars, booklets and folders.

A MAJOR CONSIDERATION, in their repeated choice of U-S **EYE-O-MATIC** packaging and advertising materials, is the one-stop, nation-wide service backed by more than eighty years of experience in design, research, and superb reproduction—in short, **EYE-O-MATIC** selling power.

LET US SHOW you interesting examples pertinent to your business. A card or memo will bring prompt action.





AT BOTH
BIG SHOWS

NATIONAL PACKAGING EXPOSITION

Atlantic City • APRIL 1-4

BOOTH 275 CONVENTION HALL

POINT OF PURCHASE ADVERTISING EXHIBIT

New York • APRIL 1-3

BOOTH A-1 WALDORF ASTORIA HOTEL

LITHOGRAPH COMPANY

Six Modern Plants: Baltimore, Md. • Cincinnati, O. • Erie, Pa. • Minoola, N.Y. • Redwood City, Calif. • St. Charles, Ill.

For your information

James O. Rice has been appointed administrative vice president of the **American Management Assn.**, New York. In this new capacity, Mr. Rice will be responsible for the administration of the association's general program, including conferences, seminars, research, publications, public relations and membership service. He will also continue his duties as secretary of the association.



Mr. Rice

Number 14 in **The Hinde & Dauch Paper Co.'s** "Little Packaging Library" series, just published, is titled "How to Pack War Materials in Corrugated Shipping Boxes" and includes information on the protective packaging of war materials of all types. Copies may be obtained by writing to the company in Sandusky, O.

An informative booklet published by **Reynolds Metals Co.** entitled "How Aluminum Can Save Tin" gives details of alternative packaging materials developed by Reynolds which may be used, particularly for dry food products. The booklet may be obtained without cost by writing to the company at 2500 S. Third St., Louisville 1 ,Ky.

The **Society of Industrial Packaging & Materials Handling Engineers** will hold this year's annual exposition in the Chicago Coliseum on Oct. 14, 15 and 16. The educational "short course" program conducted during the exposition will be arranged by the Mechanical Engineering Department of the University of Illinois under the supervision of **N. A. Parker,** head of the department, **S. C. Robinson,** assistant dean and **R. K. Newton,** member of the extension division. The National Protective Packaging & Materials Handling Competition, open to both members and non-members of SIPMHE, will be one of the features of the meeting.

Stewart Pike of Philadelphia has been elected national president of the **Industrial Designers Institute** for 1952. Other officers elected by the national board of trustees of I.D.I. are as follows: **Robert L. Gruen,** New York, vice president; **Henry Hagert,** Philadelphia, secretary and **Kurt Versen,** Englewood, N. J., treasurer. **Paul MacAlister,** Chicago, **Frank Gianninoto, Belle Kogan, Gordon Obrig** and **Tom Lamb,** all of New York; **Donald Laudenslager** and **William Bowers,** Philadelphia, were elected to the board of trustees. **Dan Jensen,** Philadelphia, **Robert Goldberg** and **Gerald Johnson,** New York, were elected national advisors at large.

The New York chapter of I.D.I., which held its annual board meeting in February, elected the following officers: president, **Robert L. Gruen;** vice president, **Robert I. Goldberg;** secretary; **Elizabeth Dralle** and treasurer, **Ann Franke. Jens Risom, John Vassos, Scott Wilson** and **Mr. Gianninoto** have been named new members of the board of trustees.

U. S. Dept. of Commerce, Commodity Standards Div. of the Office of Industry & Commerce, announces the availability of a new 208-page book titled, "Simplified Practice Recommendation R247-52, Packaging, Marking and Loading Methods for Steel Products for Domestic Shipments." The recommendation has been in effect since Jan. 1, 1952. The book may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. The price for single copies is 75 cents and a discount of 25% is allowed on orders for 100 or more copies sent to one address.

More than 130 persons attended the second annual corrugating conference held by the Chicago section of the **Technical Assn. of Pulp & Paper Industry** in January. The sessions were presided over by **Vance V. Vallandigham,** Kelco Co., chairman of the section. **G. A. Zinkil,** Fibre Products Co., Quincy, Ill., was moderator of the conference which heard six speakers. **G. A. Farrah,** National Container Corp., Tomahawk, Wis., spoke on "Component Materials Required;" **R. T. Cassady,** The Jackson Box Co., Cincinnati, O., on "Operation of the Corrugator;" **M. L. Hamilton,** Container Corp. of America, on "Quality Control in the Box Shop;" **Paul Harrison,** Velocity Steam Production Engineering, Inc., on "How Costly is it to Operate Your Modern Equipment with Horse-and-Buggy Methods of Handling Steam;" **Harry J. Bettendorf,** *Fibre Containers & Paperboard Mills* magazine, Chicago, on "Technical Personnel is Expensive" and **L. H. Grubbs,** Johnson & Johnson Co., on "The Customer Speaks."

William W. Wachtel, president of Calvert Distillers Corp., will be the featured speaker at the 6th annual symposium-luncheon sponsored by the **Point-of Purchase Advertising Institute,** it has been announced. The luncheon is to be held at the Grand Ballroom of the Waldorf-Astoria Hotel, New York, April 2, 1952.

During a recent meeting of the board of directors of **Packaging Institute** it was decided to organize a finance and systems committee whose responsibility would include making recommendations for changes, simplifications or improvements in the records-keeping system of the organization as well as policy in regard to the creation of cash reserves and their investment, and to prepare the 1952 budget. **R. C. Reed** was named chairman of the committee with **C. O. Kendall** and **E. F. Dival** as members.

A nominating committee consisting of **C. L. Barr, M. T. Rogers** and **C. O. Kendall,** all past presidents, was appointed to draw up a slate of officers for the Institute's fall elections. Three other members are to be appointed later.

Mr. Reed, who is also chairman of the program committee, reported on plans for the 14th annual forum which will be held Oct. 20, 21 and 22, at the Hotel Commodore in New York City.

H. T. Holbrook was appointed chairman of a committee on publication policy which includes **F. S. Leinbach, A. D. Murphy** and **Dr. J. C. Bird.**

The **Packaging Assn. of Canada,** organized last year, has mapped out a program for 1952 which includes a series of educational and informational meetings in

What's doing

March 11-14—**Society of the Plastics Industry,** 5th national exposition, Convention Hall, Philadelphia, Pa.

March 17-19—**Folding Paper Box Assn. of America,** Drake Hotel, Chicago.

March 23-27—**American Chemical Society,** Buffalo, N. Y.

March 22-April 6—**Chicago International Trade Fair,** Navy Pier, Chicago.

March 24-28—**National Folding Paper Box Assn. of America,** Chicago.

March 30-31—**Packaging Machinery Mfrs. Institute,** semi-annual meeting, Hotel Dennis, Atlantic City.

April 1-3—**Steel Shipping Container Institute,** Palm Beach Biltmore, Palm Beach, Fla.

April 1-4—21st National **AMA Packaging Exposition,** Atlantic City Auditorium, Atlantic City.

April 28-30—**National Independent Meat Packers Assn.,** Sherman, Chicago.

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. . . turning Needs into Wants



Does your Package *Promote* Sales?

OLD DOMINION
Box Company, Inc.

Plants located throughout the South

Executive Offices: LYNCHBURG, VA. • *Sales Offices:* CHARLOTTE, N. C.



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Charlotte, North Carolina

Please send me free the Versatility Folder that shows every type of set-up box used in my industry.

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Company _____

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Spotlight your package with **LAMCOTE SHOWMANSHIP...** human nature will do the rest. Sparkling LAMCOTE adds irresistible glamour and appeal to every color, texture and design . . . applies two fundamentals of good advertising: attention value and interest. Yes, LAMCOTE packages actually compel new stop, look and buy attention . . . repay you with new, bigger "box office."

Prove this to yourself! Test the magic of LAMCOTE on your next package — add LAMCOTE to your present design or ask us to create a new, functional, sales-pulling package for you. LAMCOTE samples available on request. Write today!

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LAMCOTE Not a spray, liquid or coating—but a tough, lustrous, transparent film of plastic applied by our exclusive process to the surface of paper, cardboard, fabric or other material.

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See Our Exhibit Booth 126, A.M.A. Exposition
Atlantic City, April 1-4

For your information

leading centers throughout Canada. Two regional conference committees have been formed to sponsor meetings in their areas at which leading packaging, packing and handling experts, designers and display experts will speak and lead discussions. A technical committee and a design committee are getting under way on projects within their scope of activity.

PAC's second annual conference will be held in Toronto in the fall of 1952. A survey is being made on the possibilities of holding an exposition in conjunction with the conference.

John P. Gledhill, vice president in charge of sales, Aluminum Rolling Mills Ltd., Montreal, has been elected president of PAC. Other officers and directors serving in 1952 include: **F. C. Lennox,** Somerville Ltd., London, Ont., and **H. Romani,** Christie, Brown & Co., Toronto, vice presidents; **F. C. Hayes,** Container Statistics, Ltd., Toronto, treasurer.



Mr. Gledhill

The executive committee is composed of the officers plus **C. C. Callowhill,** American Can Co., Canadian Div., Hamilton, Ont.; **H. McArthur,** Hinde & Dauch Paper Co. of Canada, Ltd., Toronto.



Mr. Cornell

The appointment of **Charles R. Cornell** as full-time secretary of the association has also been announced. Mr. Cornell resigned as editor of *Canadian Packaging* magazine with which he has been identified from its initial issue, to take over this new position.

All entries in the second annual Set-Up Paper Box Competition, sponsored by the **National Paper Box Mfrs. Assn.,** will be exhibited and award certificates distributed at the NPBMA convention at the Drake Hotel, Chicago, May 11 to 14. Boxes were judged by **Magnus Gaukerud,** Container Corp. of America, Chicago; **Walter M. Hilliard** (retired), formerly with Dennison Mfg. Co., Framingham, Mass.; **Gustav Jensen,** industrial designer, New York; **Howard C. Minnich,** U. S. Printing & Lithograph Co., Cincinnati, O.; **Richard Morey,** Acme Paper Box Co., Chicago; **John H. Paterson** (retired) former head of OPA Packaging Div. and Civilian Production Authority, Buffalo, N. Y.; **L. W. Stratton,** The Wieboldt



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Base machine makes a pouch style bag, opens it for filling, seals it, and discharges a completed package. Design allows for selection of the best filling equipment available for your product. Special feeders for unusual items. Standard unit makes bags from heat sealing papers, foils, cellophane, laminations, etc.

Whether your product is liquid, powder, solid, multiple items, or requires packaging under nitrogen gas, the Bartelt Machine will handle your needs.

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2 SIDES... TO EVERY STORY! 2 SIDES... TO EVERY LABEL!

But with a Label... both sides MUST BE RIGHT!

EVER READY is dedicated to the design and production of labels that are "right both times."

ON THE FACE OF IT... attractive, well well-styled effective "Tools of Business" that Go Places and Do Things!

BACK OF THE LABEL... through specialization... special stock, special adhesives, special formats. Heat-Seal, Red-E-Stik (pressure-sensitive), spot gummed, strip gummed, carbonized, cut single or in rolls. Our 50,000 customers tell us we are right!

Sure, we can help you too!

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Pack, Inspect and Assemble

with ISLAND UNITIZED CONVEYOR TABLES



SPEEDS UP PRODUCTION

An all-purpose portable belt conveyor, work table and straight-line production system, with and without side leaves. Available up to 100 ft. long in 10 ft. easily assembled sections.

PORTABLE OR STATIONARY

The perfect mechanized table for assembly, inspection and packaging operations. Available in steel or stainless steel with fixed or variable speed.

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FOLDING PAPER BOXES
COUNTER AND WINDOW DISPLAYS
POINT OF PURCHASE MATERIAL

Designing and manufacturing to meet the exacting needs of hard-hitting, split-second timed sales promotional campaigns for the top-notchers requires unusual

It is very probable that our wealth of experience and facilities will prove a boon to you.

BROOKS & PORTER, INC.
304 HUDSON STREET, NEW YORK, 13

For your information

Stores, Chicago and **Martin Ullman**, packaging designer, New York.

Entries, which had to be submitted by March 1, were eligible in one or more of 25 categories.

The committee in charge of the competition, headed by **Clifford C. Vatter, Sr.**, Bradley & Gilbert Co., included **Raymond H. Dowd,** Dennison Mfg. Co.; **Don B. Fobes,** Paper Package Co.; **William C. Milsom,** F. N. Burt Co.; **Douglas T. Neale,** NPBMA president, and **Gustav L. Nordstrom,** executive secretary.

The **Society of the Plastics Industry, Inc.** has formed a special committee on the use of plastics in food packaging and planned to have members of this committee testify during the public hearings held in Washington by the House of Representatives' Select Committee to Investigate the Use of Chemicals in Food Products (Delaney Committee).

The Miller bill, currently sponsored by the Delaney Committee and on which the hearings have focused, would give the U. S. Food & Drug Administration final and absolute authority to determine whether or not a new cheanical, etc. should be used in connection with foods. One of the requirements of the bill would be that all packages which were to contain a food product would be submitted to the FDA for its approval before being commercially marketed.

The consensus of the SPI special committee was that such a requirement would work an undue hardship on the industry and that, insofar as plastic packages were concerned, the amount of research and testing done by the plastics producers made such a requirement unnecessary.

Wayne University, Detroit, Mich., which has sponsored an evening course for businessmen on packaging, materials handling and distribution for the past five years, has announced the continuation of the course for the 1952 spring period. **John G. Anderson,** senior engineer in the Packaging & Materials Handling Engineering Section of the Cadillac Motor Car Div., General Motors, directs the course.

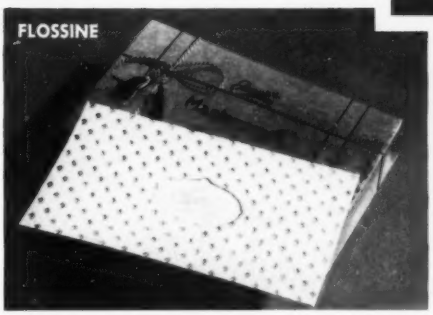
American Society for Testing Materials, Philadelphia, has published a revised and expanded edition of its 1944 monograph, "Paper and Paperboard," which provides expert and critical discussion of the significance of the more commonly used tests, and defines terms, nomenclature and properties of paper related to these tests. This new 104-page 1952 edition was edited by **L. C. Reid,** Metropolitan Life Insurance Co., past-chairman of

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Sweetone Paper Products meet every requirement for complete protection of fragile products . . . at the same time improving the interior appearance of your package. We have full facilities for cutting, dieing out and embossing to your specifications.

Write Dept. B for samples to your specifications and/or literature on the Sweetone products below:

CELLULOSE WADDING	WAXED PAPERS	DIE CUT LINERS	BOATS AND TRAY ROLLS
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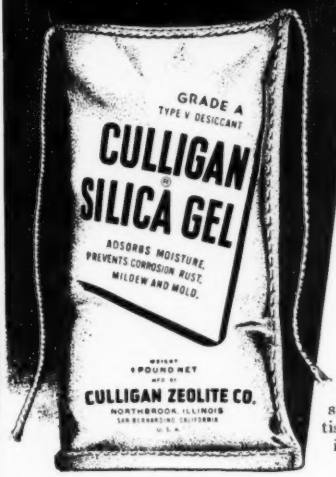
GEORGE H. SWEETNAM, INC.

Specialists in Interior Packaging

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a cubic inch adds up to **an acre of adsorption!**

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FOR METHOD II DEHYDRATED PACKAGING

For parts and equipment that must be packaged desert-dry, specify Culligan Silica Gel. Scientists have estimated that one cubic inch of Culligan Gel, interspersed with minute capillaries, contains an acre of surface available for adsorption. It actually adsorbs up to 40% its own weight of moisture! Over 2,000 leading organizations have consistently specified Culligan Silica Gel for Method II dehydrated packaging, and carloads of this grade A desiccant have been delivered on prime contract directly to the military services. Culligan... the world's largest distributor of desiccants at the close of World War II... offers assurance of experience, dependability and leadership!

write for **PRICE LIST AND SPECIFICATION SHEET**

- **Culligan Silica Gel meets current military specifications. Prices are competitive.**
- **Available in all standard bag sizes, in bulk, or custom packaged to fit your immediate needs.**
- **National field-staff service of expert Culligan packaging engineers.**
- **Two convenient shipping points: Northbrook, Illinois (suburb of Chicago); San Bernardino, California.**

CULLIGAN DESICCANTS

Copr. 1952 Culligan Zeolite Co.

CULLIGAN ZEOLITE COMPANY
Home Office, NORTHBROOK, ILLINOIS

For your information

ASTM Committee D-6. Mr. Reid was assisted in the preparation of the material by: **H. A. Anderson,** Western Electric Co., Inc.; **R. D. Bonney,** Congoleum-Nairn, Inc.; **M. S. Kantrowitz,** U. S. Government Printing Office; **W. B. Lincoln, Jr.,** Inland Container Corp.; **C. E. Peterson,** Riegel Paper Corp.; **P. F. Wehmer,** Electrical Testing Laboratories, Inc.; **W. R. Willets,** Titanium Pigment Corp. Copies may be obtained from ASTM headquarters at 1916 Race St. The price is $2.50 per copy; the number is STP No. 60-A.

The society has also announced the formation of a new technical committee (D-23) on Cellulose and Cellulose Derivatives. To coordinate the work of this new committee with other groups, official representation has been obtained from other ASTM committees which have developed standards on cellulose in general as it has applied to their subject and from American Chemical Society, TAPPI, Institute of Paper Chemistry, etc., **F. A. Simmonds,** U. S. Forest Products Laboratory, Madison, Wis., has been appointed temporary chairman of the committee and **W. W. Becker,** Hercules Powder Co., Wilmington, Del., temporary secretary.

Bradley Industries, Inc., Chicago, has published a new catalog of its line of transparent molded plastic boxes that are available for immediate delivery according to the company. Requests for copies may be sent to the company's office at 1652 N. Damen Ave.

An address by **Maj. Gen. Ward H. Maris,** U.S.A., on the progress of the Office of Research & Development in designing and testing plastic materials for combat was the highlight of a banquet given during the recent Eighth Annual Technical Conference held by the **Society of Plastic Engineers, Inc.,** in January at the Edgewater Beach Hotel, Chicago. During the conference the following officers were elected for 1952: **William O. Bracken,** Hercules Powder Co., president; **Walter Oelman,** Standard Molding Corp., vice president; **Don F. Hoffman,** Evans-Winter-Hebb, Inc., treasurer; **John LaBelle,** Koppers Co., Inc., secretary.

The Mehl Mfg. Co., a Division of **Sydney-Thomas Corp.,** 2057 Reading Rd., Cincinnati 2, Ohio, has published a pocket-sized booklet titled "Military Packaging Guide," which outlines Government packaging involving protective barriers that conform to military specifications. Copies of this handy illustrated booklet may be obtained on request to the Mehl Mfg. Co.



BEETLE plastic provides the famous DuBarry line with a closure material of luxurious appearance and molded-in color.

Colorful BEETLE® *plastic closures...* stop the shopper; close the sale

Color sells; drabness repels. That's a basic reason why so many leading cosmetic manufacturers give their products clean, fresh, inviting color with BEETLE plastic closures. They're *all* color . . . from surface to surface. And, regardless of their shape, they won't fade, chip or peel.

Special "beauty" formulas won't make BEETLE ugly. It's resistant to achohol, essential oils and chemicals. It's also resistant to soiling . . . any perspiration marks or dirt simply wipe off.

Like to see *your* product in the pink? . . . blue, green, yellow or any other beautiful plastic color? We'll be glad to help you!

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PLASTICS DEPARTMENT

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Washington review

Beginning with the third quarter, supplies of polyethylene are expected to show a 50% gain over the same period in 1951. If such a gain occurs and if there is no appreciable increase in military needs, NPA believes control of polyethylene (Schedule 5, Chemicals Order M-45) can be removed.

No increase in military requirements is anticipated after the second quarter, according to NPA. New military uses might break out at any time, however. Distribution of polyethylene during January and last month continued to be about one-third military, one-third essential civilian and one-third "free."

It is interesting to note that manufacturers of rigid plastic frozen-food containers recently sought to have their supplies placed on allocation, but changed their minds when it was pointed out they were already getting better than 100% of their base-period use through the "free" supply.

New polyethylene capacity is expected in April and more in the third quarter. Present capacity now may be 6 to 7 million pounds a month. There can be little question that additional supplies will spur new or increased uses and thus keep demand even with the increases.

Second-quarter pinch

The next three months should see the period of greatest curtailment of metals for the four-year mobilization program, according to Henry Fowler, NPA chief.

A survey of probable military demands and prospective metal supplies for the second half of the year is being made and will provide data on which industry can base production schedules in the third and fourth quarters.

Manufacturers, Mr. Fowler reports, have been formally asked to keep up the flow of general-line goods instead of turning to more profitable, higher-priced items. At the same time, a warning was issued that mandatory action might have to be taken if voluntary compliance in stressing low- and medium-priced products is not observed.

Metals outlook

The curtailment of critical metals continues to be serious, but several favorable turns may ease the strain. Production of steel and aluminum got off to a good start in the first two months of the year, with encouraging output gains being reported for both metals. Lead imports improve the prospects for supplies of that material. The agreement with Britain providing for the purchase of Indonesian tin has to a limited extent improved the tin outlook. Shipments are to be scheduled at a rate of 5,000 tons quarterly and may begin this month.

As a result of the "stretch-out" in the aircraft program, five million extra pounds of aluminum are being rechanneled to producers of civilian goods for use in the second quarter.

Munitions Board Chairman John D. Small predicts that defense needs will ease for the third quarter and that civilians should get a greater share of available aluminum and steel during the last two quarters.

Increased aluminum production is expected to make itself felt during this period, but to what extent cannot be said at this time. Military demand for aluminum is not expected to reach a peak until the first quarter of next year.

Cans

More cans are now being made available for spaghetti and macaroni, chili with beans, non-seasonal soups, dried soaked beans—and baby powder and mechanics' hand paste soap as the result of recent NPA action increasing tin quotas for these products.

The following changes in the quotas of cans that may be used were made in Schedule 1 of Can Order M-25:

1. Chicken broth and mechanics' hand paste soap—raised from 70 to 100%.

2. Macaroni, noodles and spaghetti, wet pack; spaghetti and meat balls; soups, liquid, non-seasonal; beans, dry soaked; baby powder—raised from 90 to 100%. Soups and soup bases, dehydrated, 9-oz. cans and larger only, are also raised from 90 to 100%.

3. Chili with beans—raised from 90 to 110%. However, quota for chili without beans was reduced from 120 to 110%.

CMP

Beginning with the second quarter, Class "B" product manufacturers requiring certain limited amounts of CMP materials will start to use the self-authorization procedures provided for in Dir. 1 to CMP, Regulation 1. "B" products—listed in NPA's "Product Assignment Directory"—are those of general design: various types of packaging machinery and metal cans, drums, boxes, collapsible tubes, steel strapping, etc.

The self-authorization procedures permit materials for "B" products up to the limit of base-period usage (quarterly average during 1950), provided the limits do not exceed the following amounts:

Carbon steel, 30 tons; alloy steel (except stainless steel), 8 tons; stainless steel, 1,500 lbs.; copper and copper-base items, 3,000 lbs.; aluminum, 2,000 lbs.

If you require more than the above amounts, or more than your average quarterly use during 1950, you must file a Form CMP-4B.

Regardless of your base-period use, however, you may self authorize orders up to the following amounts:

Carbon steel, 5 tons; alloy steel (except stainless), ½ ton; stainless steel, none; copper and copper-base products, 500 lbs.; aluminum, 500 lbs.

Purchasers of controlled materials, in accordance with amended Dir. 1, can charge shipments to allotments for the quarter in which delivery was originally scheduled.

Defense directory

The third edition of the "Handbook of Emergency Defense Activities, Oct. 1951—March 1952, Edition" has been announced by the Federal Register Division.

This 119-page booklet is a guide to Federal agencies, all or part of whose functions are devoted to mobilization or to other related phases of the defense program. It includes brief organizational outlines and the names and addresses of officials of emergency defense agencies, the Department of Defense and the United States Coast Guard.

The revised edition costs 30 cents a copy and may be ordered from the Superintendent of Documents, Government Printing Office, Washington 25.

Applications in triplicate

All assistance applications should be made in triplicate by those seeking priorities, materials or any other type of aid, NPA has announced. The new procedure will enable all divisions or bureaus concerned with the case to expedite processing and thus save from two to 10 days, it is estimated.

NPA also points out that use of new Form NPA-132, "Application for Adjustment or Exception," will save both applicants and NPA much time and effort. The form is a convenient means of supplying the information needed for processsing not only adjustments or exceptions, but other kinds of assistance requests as well.



Kimble Opticlear Vials come in eight popular sizes.

LEADERSHIP is our business

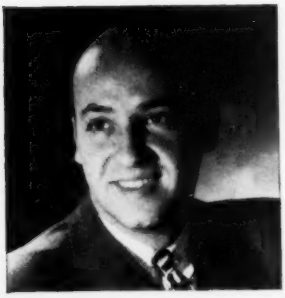
THE ORIGINAL MEANING of business is being busy. Kimble keeps busy maintaining its traditional leadership in the quality of the types of glass products it produces. Users of such products have shown their approval of Kimble policies by making Kimble the leader in volume as it is in quality.

Kimble Opticlear Vials are an example. They were designed to offer the utmost in protection of dry products that must be kept dry. They have swiftly assumed leadership in the vial field. If you are looking for a container to help you attain or maintain leadership for a product of yours, consult Kimble.

Kimble Makes Glass Serve You

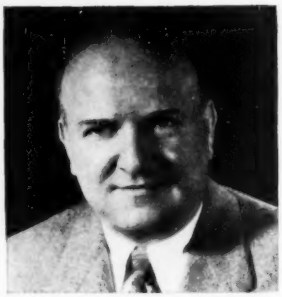
KIMBLE GLASS TOLEDO 1, OHIO

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CHESTER THOMSON, *recently sales promotion director of Calvert Distillers Corporation, has a wide background in sales research and marketing, and is experienced in coordinating advertising, promotion and display.*

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MILTON GRANNE *has been a salesman, Eastern sales manager for Blatz Brewing Co., independent distributor, marketing consultant to many companies. In recent years he has specialized in sales training and retail promotions.*

Einson-Freeman makes very good displays. Our sophisticated customers send paid telegrams, phone long distance, to tell us so. They keep the display in their offices, and show all their friends . . . Then they just send it out. Forget all about it! And the display we sweat blood over sometimes ends up catching cobwebs in its original container in Ida, O!



This customer characteristic has irked us like a sprung sacroiliac, for years and years. Finally we decided to do something about it. Finally we did . . . Herewith we announce our new Department of Display Appreciation, competently curatored by Messrs. Granne and Thomson . . . who are dedicated not to selling displays, but selling Display! (They may take an order, if pressed.)

Are your salesmen infatuated with advertising innovations such as television and LIFE magazine? . . . Does your fact sheet on display merely mention shipping weight and dimensions? . . . Are your dealers dull-eyed, slow pay? . . . Do you use display to get orders? Deals? Choice shelf space? Drinks on the house? . . . Do you buy displays by the pound, or low bid? . . . Do you give a damn about display? . . . Then phone, wire or carrier pigeon our DDA! Book an appointment with Messrs. Thomson or Granne . . . They will survey your situation, analyze your problem, get down to the nuts and bolts, tie up the whole ball of wax for your salesmen! They will even follow through! . . . What more can you ask? Or want?





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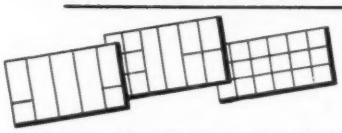
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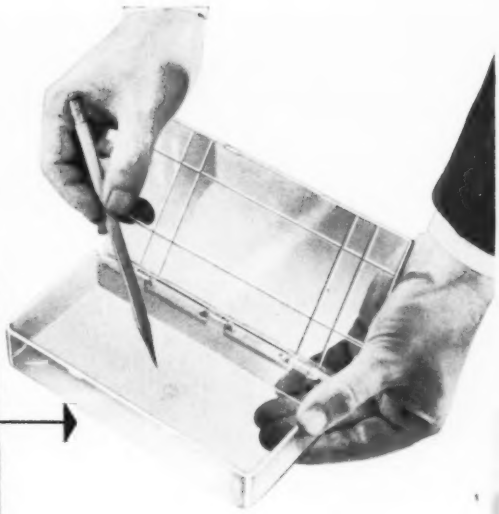
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THE HEEKIN CAN CO.,

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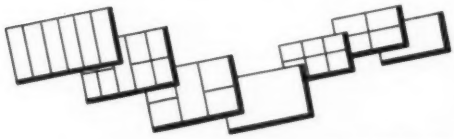
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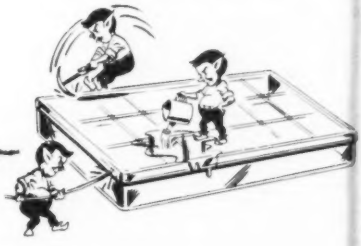
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This package, although light and attractive, is rigid and expertly designed for strength to protect your product. All plastic — even the hinges . . . nothing to break loose . . . thoroughly durable.





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U. S. patents digest

This digest includes each month the more important patents of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps are not accepted.

Edited by H. A. Levey

Container and Assembling Machine, R. E. J. Nordquist and H. F. Cox, Jr. (to American Can Co., New York, N. Y.). U.S. 2,578,731, Dec. 18. In an apparatus for securing an end member in inserted position against a shoulder provided by an inwardly extending bead from flange of a fibre container body, means engageable with shoulder to hold the container in position.

Container Capping Machine, H. R. Ames, Lomita, Calif. U.S. 2,578,772, Dec. 18. In a container capping machine, a plural number of revolvable tables, one of said tables being adapted to receive and convey container caps from a point of supply and the other table being adapted to receive and convey open containers from point of supply, second table having a container cap-support pedestal in spaced relationship to container.

Heavy-Duty Fibre Container, S. P. Belsinger (to Belsinger Inc., Atlanta, Ga.). U.S. 2,578,774, 2,578,775, 2,578,776 and 2,578,777, Dec. 18. A foldable heavy-duty fibre container formed from a substantially rectangular blank, blank being scored and slit to provide, when assembled for use, a bottom wall, side walls integral therewith and extending upwardly at right angles thereto and having a cover member the length and width of the container integral with each side wall and adapted to fold one on the other when closed, side walls having slots midway between ends of container.

Molded Carton For Fragile Articles, W. H. Randall (to The Canal National Bank of Portland, Maine, as trustees). U.S. 2,578,739, Dec. 18. A carton for eggs comprising an integral sheet of molded pulp contoured to provide a tray-like base section and a tray-like generally flat-bottomed cover section, each having side and end walls terminating in peripheral flanges in the plane of the sheet.

Banding Machine, V. A. Gray (to Kartridg-Pak Machine Co., Chicago, Ill.). U.S. 2,578,799, Dec. 18. In a machine for automatically banding articles, means for supplying banding material, a platen across which portions of the banding material are adapted to be positioned while being secured together, means for feeding the articles to be banded and means for moving each article into position beyond platen with portions of banding material about article and provided with sealing head.

Apparatus For Vacuumizing, Gassing and Closing Containers, A. L. Kronquest (to Continental Can Co., Inc., New York, N. Y.). U.S. 2,578,815, Dec. 18. A container vacuumizing, gassing and closing unit comprising, in combination, a vacuumizing and gassing machine, a closing machine, means for feeding filled containers and closures into the vacuumizing and gassing machine and closures for friction closing the containers.

Tray-Type Carton, K. T. Buttery (to Sutherland Paper Co., Kalamazoo, Mich.). U.S. 2,578,878, Dec. 18. A collapsible tray or box formed of an integral blank comprising a bottom and side and end walls hingedly connected thereto with corner flaps hingedly connected to ends of end walls and foldable on outer sides of side walls.

Apparatus For Removing Cans From Cartons L. W. Waters (to Atlas Imperial Diesel Engine Co., Oakland, Calif.). U.S. 2,578,912, Dec. 18. A can-decasing machine comprising a plurality of can-gripping plungers reciprocal in a fixed horizontal path, plungers being relatively fixed and aligned in a vertical plane perpendicular to their path of travel, number of plungers agreeing with number of cans in a tier in a case.

Machine For Applying Banding Sleeves To Containers, H. G. Allen, W. O. Sims, E. A. Ebert (to American Machine & Foundry Co., New York, N. Y.). U.S. 2,579,458, Dec. 25. In a machine for applying banding sleeves to containers, the combination of means for moving a line of containers continuously through a predetermined path, a continuously operable rotary turret, means within turret for applying a banding sleeve to each container moving through said predetermined path.

Dispensing Container For Coiled Wire, G. C. Tinsley (to Precision Steel Warehouse, Inc., Chicago, Ill.). U.S. 2,579,131, Dec. 18. A package comprising a container having substantially parallel flat walls and connecting walls therefor, a coil of wire housed in said container, one of first-mentioned walls being weakened in the path of a circle thereby to define a portion removable to provide a central dispensing opening.

Weighing and Packaging Apparatus, E. E. Lippmann and A. W. Lippmann, Milwaukee, Wis. U.S. 2,579,237, Dec. 18. In a machine for filling cartons one after the other with an exact predetermined quantity of rod-like articles, a trough-like bin of a shape in cross section corresponding to the shape in cross section of the cartons to be filled and open at both ends, a weighing scale supporting the bin.

Detector Mechanism For Capping Machines, G. M. Stevenson, Baltimore, Md. U.S. 2,579,404, Dec. 18. In a detecting mechanism for capping machines of the type in which containers are capped on a traveling conveyor, machine including a traveling conveyor and capping station adjacent to conveyor for capping containers passing same.

Tear Tape, J. E. Snyder (to Wingfoot Corp., Akron, Ohio). U.S. 2,579,443, Dec. 18. A package which comprises a complete enclosure of rubber hydrochloride film, on the inner surfaces of which and protruding from one edge is a tear tape of regenerated cellulose laminated to rubber hydrochloride, rubber hydrochloride of tear tape being heat sealed to inner surface of wrapper.

Non-Refillable Container, N. Archidiacano, Boston, Mass. U.S. 2,579,460, Dec. 25. A container for liquids made with an outlet passage, a pair of cup-shaped lining members fitted and fixed with said passage, one above the other, with their chimes abutting, to provide between them an interiorly cylindrical chamber.

Container With Folded Top Seam, S. Birkland (to American Can Co., New York, N. Y.). U.S. 2,579,465, Dec. 25. A hermetically sealed sheet-metal container comprising a tubular body having a wall terminating at its outer end in a depending flange spaced inwardly from the body wall, said body having an inwardly extending peripheral bead disposed beneath flange.

Container With Folded Top Seam, S. Birkland (to American Can Co., New York, N. Y.). U.S. 2,579,466, Dec. 25. Same as above with tearing strip effecting severance of end member from body to open container.

Container, E. G. Schaefer, Newark, N. J. U.S. 2,579,518, Dec. 25. In a flexible-sheet container having a four-sided flat bottom with a peripheral edge and three interconnected side walls extending at right angles from said edge, leaving an open peripheral edge portion on bottom, side walls having substantially even upper edge, the improvement comprising such a unit having a short flap extending over the whole length of the open peripheral edge portion and hinged thereto.

Folding Carton, W. R. Saidel, Green Bay, Wis. U.S. 2,579,760, Dec. 25. A blank for a carton embodying a rectangular piece of paperboard material including a central panel, a panel at each side of and joined to the central panel by a cut and scored line and at least a fourth panel joined to one of the side panels by a scored line, central panel having transverse cut and scored lines terminating at first cut and scored lines and dividing same into sections.

Collapsible Container, A. Donald (to Gabriel Steel Co., Detroit, Mich.). U.S. 2,579,655, Dec. 25. A collapsible container comprising a base section having vertical hollow posts at the corners with vertical slots in the sides of posts which are opposite sides of other of posts, a hollow frame connecting posts intermediate the upper and lower ends thereof and below the slots.

Paper-Container Lining Machine, R. S. Condon (to Continental Can Co., Inc., New York, N. Y.). U.S. 2,579,907, Dec. 25. In a machine with means for directing a strip of liner material from a supply roll, means for corrugating the strip of liner material, means for cutting the strip into proper liner lengths and means for serially presenting containers at a liner-inserting station.

Tablet Box, J. H. O'Neill (to Continental Can Co., Inc., New York, N. Y.). U.S. 2,579,954, Dec. 25. A tablet box comprising a body and a cover, each having rear, front and side walls in-



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U. S. patents digest

tegrally connected to a bottom and top, respectively, with the cover surrounding body walls, cover being hingedly connected.

Capping Head, K. R. Allen and H. G. Vore (to American Seal-Kap Corp., Wilmington, Del.). U.S. 2,579,775, Dec. 25. A capping head for applying a flexible skirted-hood cap to the mouth of a bottle comprising a forming ring having a centrally disposed opening through which a bottle having a flexible skirted-hood cap loosely applied to the mouth thereof is adapted to be inserted and secured by means of a plurality of jaw segments circumferentially arranged about inner end of opening.

Fibre-Case Gluing Machine, E. J. Derderian (to Elliott Mfg. Co., Fresno, Calif.). U.S. 2,579,802, Dec. 25. A gluing machine for fibre cases comprising a frame structure, means suspending the frame structure in position for movement of fibre cases thereunder, deflectors for folding flatwise inner flaps of a fibre case and moving outer flaps to vertical positions, and having an adhesive reservoir pan carried by frame structure with a glue roller dipping into said pan.

Container End Structure, H. A. Scott and J. W. Spieker (to Continental Can Co., New York, N. Y.). U.S. 2,579,974, Dec. 25. A container comprising a cylindrical fibre body, an annular re-enforcing metal band closely fitting the outer upper portion of body and having upper end thereof fitting around and closely housing the end portion of body to form an annular bead-like closure bearing.

Combination Carton and Wrapper For Fragile Articles, R. E. Paige, New York, N. Y.). U.S. 2,580,043, Dec. 25. A packing for articles having portions reduced in size between ends, comprising tubular wrappers each with alternating indented and bulging sides, the indented sides of each wrapper being separated by a narrow space containing reduced portion of article.

Method Of Folding Cartons, R. B. Meller (to Bemiss-Jason Co., a corporation of California). U.S. 2,580,180, Dec. 25. The method of assembling, without use of extraneous means such as staples or adhesive, in rigid corner-forming relationship the corner portion of a flat box blank.

Self-Locking Folding Box, R. B. Meller (to Bemiss-Jason Co., a corporation of California). U.S. 2,580,181, Dec. 25. A folding box made from a sheet of foldable stock and comprising a main panel, a first wall panel hingedly connected to main panel along a first fold line, second wall panel hingedly connected to main panel along a second fold line intersecting first fold line at an angle, panels being foldable about fold lines with respect to one another into a position in which they form a box corner.

Divisible Carton, A. B. Thomas, Rochester, N. Y. U.S. 2,580,333, Dec. 25. A shipping container comprising a closed body including top, bottom and four side walls, a compartmented filler comprising internested longitudinal and transverse partition members and a pair of straps that abut against one another in a plane transverse of the body and secured to side walls, but free of the filler.

Container-Filling System, E. E. Martin (to Universal Properties, Inc., Los Angeles, Calif.). U.S. 2,580,567, Jan. 1. Container-filling equipment comprising a movable weight-responsive container support, filling nozzle carried by movable support, an accumulator connected to nozzle and means for supplying fluid to accumulator for delivery to a container.

Paper Box, J. A. O'Reilly, Bellingham, Wash. U.S. 2,580,586, Jan. 1. A container comprising a body portion made from a resilient sheet material and open at its upper end, provided about open upper end with an external upwardly and inwardly tapered collar which is formed by a sharp outward and downward bending of the body material along top edge of container.

Method For Making Paper Can Bodies, R. M. Dunning and R. Guyer (to Waldorf Paper Products Co., St. Paul, Minn.). U.S. 2,580,665, Jan. 1. The method of forming a can body which includes the steps of moving a flat sheet of a length equal to that of the can body longitudinally, simultaneously folding the sheet about a longitudinal axis, moving a second sheet longitudinally and simultaneously folding same about a longitudinal axis, second sheet being folded about first sheet and holding said sheets in tubular form.

Container For Packaging Merchandise, A. E. Weisberg, New York, N. Y. U.S. 2,580,712, Jan. 1. A container for packaging merchandise comprising a first wall formed from a sheet of rubber hydrochloride having a low degree of rigidity and having

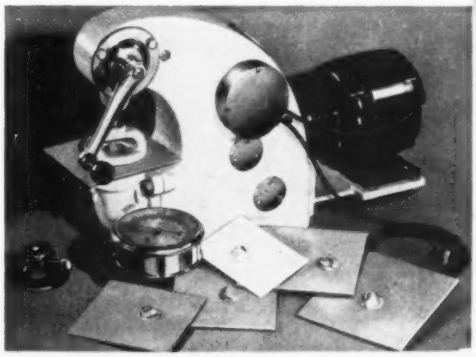
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U. S. patents digest

a predetermined peripheral contour, a second wall formed from a sheet of transparent material having a relative greater degree of rigidity.

Packaging Machine, E. R. Piper and J. M. Gardner (to West Point Mfg. Co., West Point, Ga.). U.S. 2,580,833, Jan. 1. Article package apparatus comprising a pair of spaced press members, means operative to advance one of press members toward the other, a pair of opposed normally adjacent throat members, at least one of which is movable, disposed laterally of press members, means operative in response to the advance of said one press member to separate throat members into alignment with the final approach position and a discharge member.

Machine For Folding Carton Inserts, G. B. Sayre and O. Winz (to Boonton Molding Co., Boonton, N. J.). U.S. 2,580,846, Jan. 1. Apparatus for folding both ends of a carton insert blank, apparatus comprising spaced bearings, means movably mounting same to afford relative movement of the bearings toward or away from one another, shafts carried by bearings, with forms mounted on shafts, forms being dimensioned to act as cores for folded ends of insert.

Textile Container With Slotted Corners, M. T. Hunsworth (to Container Corp. of America, Chicago, Ill.). U.S. 2,581,105, Jan. 1. A paperboard container comprising opposed box-like cover sections open at their inner ends and each having a plurality of angularly related side walls all secured together for substantially their full height and providing corners between them, sections having relatively short corner slots extending from their inner ends.

Machine For Setting-Up Cartons, D. Levkoff, Great Neck, N. Y. U.S. 2,581,115, Jan. 1. In a machine for erecting tray-like cartons, a support for a carton, a bracket at one end of support, an arm pivotally mounted in bracket and provided with a face which is brought into contact with an end of the carton to fold same to upright position.

Dispensing Container, R. H. Casler, Oakville, Conn. (one half to Ex-Cell-O Corp., Detroit, Mich.). U.S. 2,581,237, Jan. 1. A flat blank for a tubular container of rectangular cross-section, comprising a sheet of paperboard material scored and cut to provide side-wall panels, bottom closing flaps at one end of panels, and having bottom closing flap.

Carton, W. G. Freel and S. F. Jones (to W. P. Frankenstein, Cincinnati, Ohio). U.S. 2,581,400, Jan. 8. In a carton, the combination of a bottom panel, side walls along two opposed sides of bottom panel, each comprising an upstanding inner-wall member integrally and hingedly connected to said bottom.

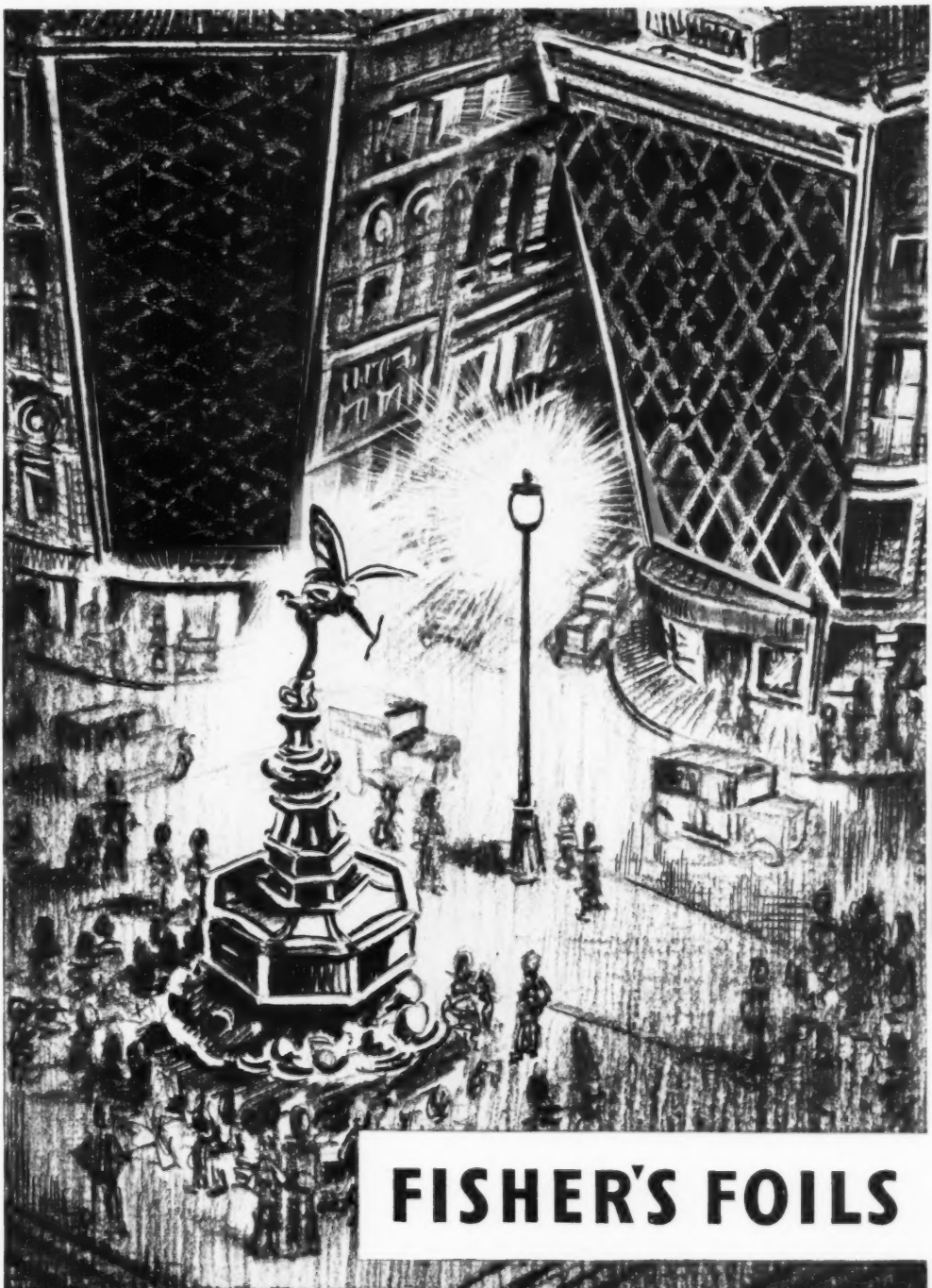
Crown Cap and Pad, A. L. Genovese (to The National Plastic Products Co., Odenton, Md.). U.S. 2,581,647, Jan. 8. A metal closure for sealing the neck of a bottle, said bottle being provided with a generally flat peripheral lip about the mouth thereof and a rounded bead circumscribing said lip, closure cap comprising a body portion and a depending skirt.

Container-Filling and Material-Settling Machine, S. R. Howard (to Pneumatic Scale Corp., Ltd., Quincy, Mass.). U.S. 2,581,795, Jan. 8. In a packaging machine, container-filling means, means for supporting a container in operative position to be filled and means for vibrating container during filling operation to effect settling of material as it is deposited therein.

Multi-Ply Bag-Tubing Machine, M. Lienart (to St. Regis Paper Co., New York, N. Y.). U.S. 2,581,801, Jan. 8. In a machine for manufacturing multi-ply stepped-end paper-bag tubes, the combination of a tube former for folding a plurality of superposed paper webs as drawn therethrough into a multi-ply tube, pull rolls adjacent the exit of tube former for pulling the formed tube therethrough.

Bag, S. G. Yount, Los Angeles, Calif. U.S. 2,581,826, Jan. 8. A bag for articles of large size, said bag having front and wall panels and pleated side walls, bag being made from at least one pair of companion sheets of material of uniform and identical width and length.

Container, J. S. Donnell (to Florida Fibre Box Co., Sarasota, Fla.). U.S. 2,581,944, Jan. 8. A shipping container consisting of a normally horizontal open-ended sleeve formed of double-faced corrugated board, embodying a bottom, a top in spaced relation to bottom, with central portion of its sides cut to form an integral upstanding locking tongue which is hinged to lower end so it is free to swing inward and outward.



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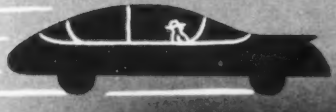
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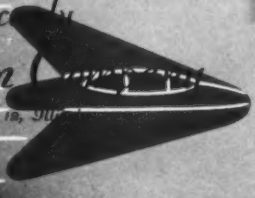
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with Du Pont Acetate Film



TO CATCH THE SHOPPER'S EYE, this sock kit is laminated with Du Pont Acetate Film. The same sparkling film covers a die-cut window to show the bright colored yarns to best selling advantage. Knitters can work right out of the box. Package looks good to the last thread because Du Pont Acetate Film protects the carton surface, won't shrink.



COLORFUL AND MOISTUREPROOF packaging is achieved with Du Pont Acetate Film laminated to foil. The film provides stability and a smooth printing surface for product identification. Many products, including effervescent tablets, powdered drugs, soluble coffee and dried milk, can rely on this combination for protection and eye-appealing sparkle.



BEAUTY THAT LASTS from plant to kitchen is assured when the label is laminated with sparkling clear Du Pont Acetate Film. Even rough handling and temperature extremes won't lessen its neat appearance. And the film highlights the printed surface . . . adds a quality look that can help build sales for any canned or bottled product.



LUSTROUS GIFT APPEAL was gained for this baby-product carton by laminating it with Du Pont Acetate Film. The carton is kept clean-looking on the store shelf and in the home . . . shows the shopper that the contents are kept sanitary . . . clean enough for baby.

In Du Pont Acetate Film, there's a bright packaging idea to help sell—and protect—your product, too. Du Pont or converter representatives will be glad to discuss them with you. Or for further information, write today to E. I. du Pont de Nemours & Co. (Inc.), Film Department, Nemours Bldg., Wilmington 98, Delaware.

DU PONT ACETATE FILM

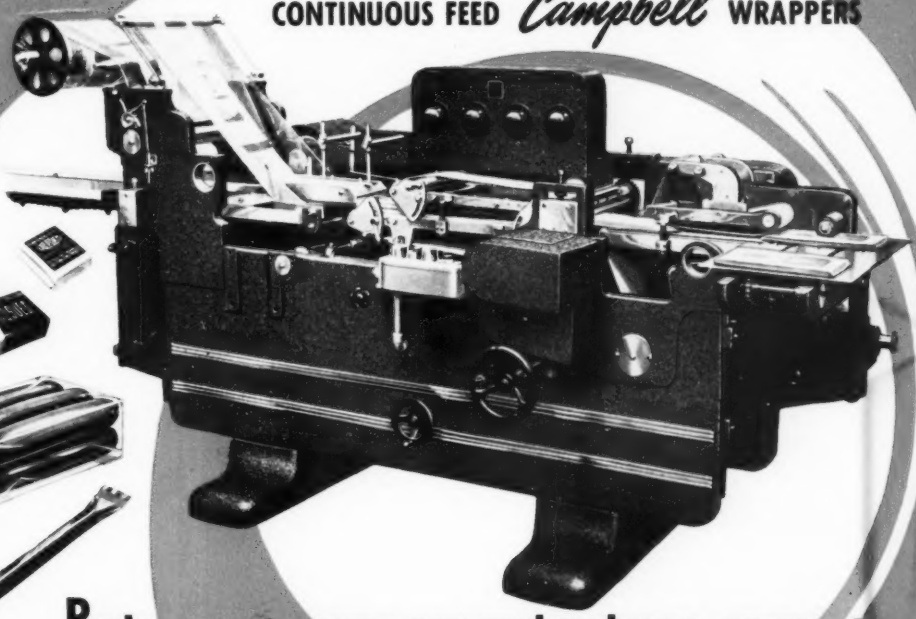
DU PONT

Reg. U.S. Pat. Off.

150th Anniversary

BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

You'll be Surprised ... AT THE GROWING NUMBER OF DIFFERENT TYPE PRODUCTS BEING PACKAGED ON THE NEW CONTINUOUS FEED *Campbell* WRAPPERS









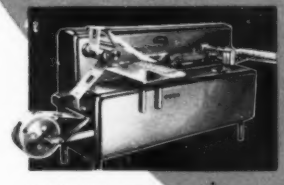
Produces neat, square-cornered packages . . wraps at SPEEDS UP TO 120 UNITS PER MINUTE — without breakage

VISIT OUR BOOTH

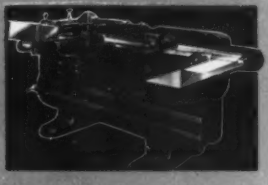
21ST. NATIONAL PACKAGING EXPOSITION

ATLANTIC CITY • APRIL 1-4

Learn first-hand how these modern wrappers can increase your packaging production . . . at lower cost!



Stainless steel encased machine for wrapping ice cream bars, stick novelties, frozen custards, and other dairy specialties.



General type machine with hopper feed for wrapping cylindrical products such as candy sticks, balls, spools, roll film, etc.





FREE Write for complete, fully illustrated brochure.



Campbell
WRAPPER
HUDSON-SHARP MACHINE CO. • GREEN BAY, WIS.

Manufacturers of Aniline and Gravure Presses, Folders, Interfolders, Laminators, Waxers, Embossers, Slitters, Sheeters, Roll Winders, Packaging Machines, Creepers and Tissue Converting Units.



FOR DEFENSE — *We are doing our part by providing a large portion of our production facilities for government defense work.*



Mailbag

(This article continued from page 161)

at that time foresee that my company would remain a continuous advertiser from the first issue, which has proved to be the case.

During its early years when MODERN PACKAGING was substantially alone in the field, it provided a rallying point for the entire industry. Later on, when the Packaging Machinery Manufacturers Institute and the Packaging Institute were in their formative periods you assisted greatly in their development.

It remains tremendously to your own personal credit and to the credit of your associates that MODERN PACKAGING now has substantial world-wide acceptance as a clearing house for information on an enormous number of subjects related to packaging.

You have served our industry well. . . .

Charles L. Barr
The F. B. Redington Co.
Chicago.

Vision usually brings success and I cannot think of a man in the business world who has better demonstrated the correctness of this old saying. I remember well the vision expressed by you (Mr. Breskin) in words and actions 25 years ago. The packaging industry was a comparative baby—groping, learning, dreaming. With courageous vision, you gathered the loose ends of knowledge on the art of packaging and soon had a mountain of facts, information and guidance to offer to those interested in this specialized and most important field. MODERN PACKAGING has been, for years, "headquarters" for information on packaging. . . . May the next 25 years bring your publication the same outstanding success.

L. R. Muskat
Triangle Package Machinery Co.
Chicago.

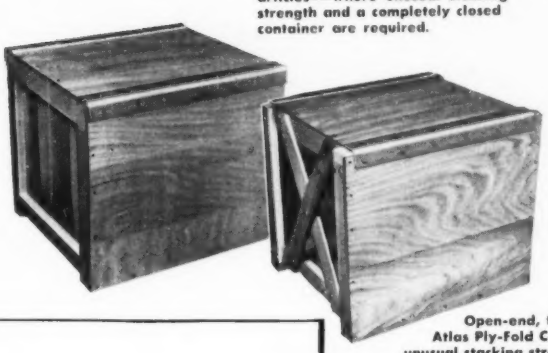
. . . We always felt (at American Management Assn.) this huge unintegrated industry needed two things to hold it together: a good publication and a strong professional association. In one man's opinion, your magazine has more than adequately met the specifications with respect to a publication. I've seen it grow from small beginnings until today, from my own viewpoint, it is the first magazine in its field.

We, as you know, in Container

The original, and standard, Atlas Ply-Fold Crate. Many thousands have been used for shipping air conditioners, stoves, desks, compressors, washing machines, etc.



Four-piece Atlas Ply-Fold Crate, designed for the shipping of heavy articles—where unusual stacking strength and a completely closed container are required.



Open-end, four-piece Atlas Ply-Fold Crate, with unusual stacking strength and serviceability—for use wherever completely enclosed containers are not required.



Atlas Ply-Fold Crate, similar to that at the left. However, this container is fitted wih backbars for the shipment of articles requiring backbar assembly.

One of these four

ATLAS "PLY-FOLD" CRATES

provides exactly the shipping protection *your product* requires



It is our privilege to supply plywood containers to the leaders of a great many industries—for the domestic or export shipment of a very wide range of products. Some are light, some are heavy; some are small, some are very large.

Four of the most important types of Atlas Plywood Crates are pictured above. Each of these is delivered with the components partially assembled—which means ease and economy in assembly. All feature light-weight construction, minimum displacement, minimum container cost, minimum shipping cost.

For the past 22 years we have maintained—in Lawrence, Massachusetts—what is probably the most complete Container Laboratory in this country. Every possible test for stress, strain, durability, weight and final cost is constantly applied to assure the safe delivery of your product. Periodically this Laboratory tests selected samples of all containers made for each customer in any of our plants. Here is complete Quality Control on your containers *at no extra cost.*

We invite the opportunity to discuss your needs for plywood containers or crates—in any quantity, large or small—on any schedule, delivered anywhere. Kindly address your letter to Department **56.**

21ST NATIONAL PACKAGING EXPOSITION
ATLANTIC CITY-April 1-4 1952

MANUFACTURING PLANTS

Richford, Vt. — Plymouth, N. C.
Morrisville, Vt. — Williamston, N. C.
Greenville, Me. — Munising, Mich.
Howland, Me. — Newberry, Mich.
Houlton, Me. — Grayling, Mich.
Patten, Me. — Rhinelander, Wisc.

DISTRIBUTING PLANTS

Lawrence, Mass. — Phillipsdale, R. I.
Southbridge, Mass. — Camden, Ohio

CONTAINER DIVISION

ATLAS PLYWOOD CORPORATION

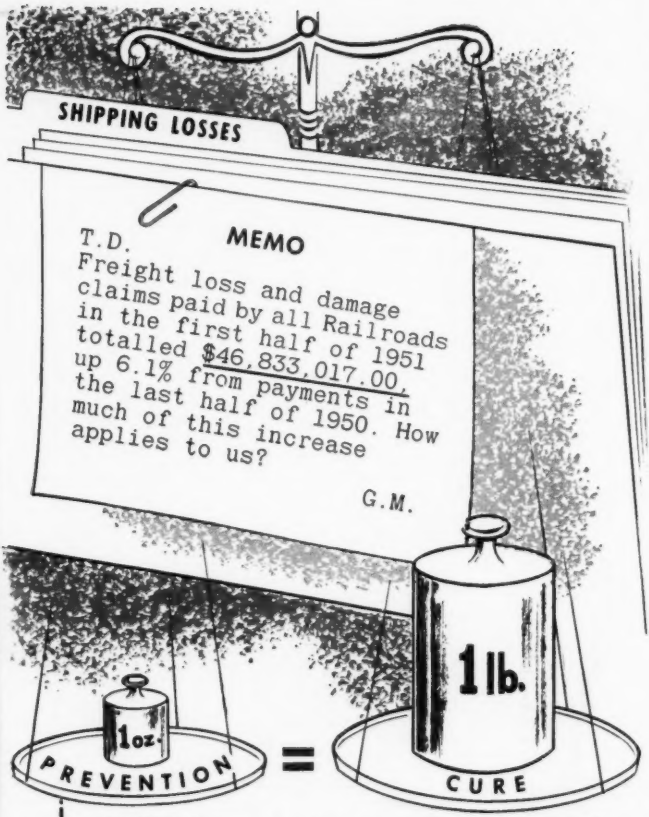
SALES-SERVICE OFFICES

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STATLER BUILDING, BOSTON 16, MASS. • Telephone: Hancock 6-0016 • Teletype: BS-644



EVERY loss, no matter how small, endangers the good will and good product every package carries. The source is packing; check yours and call in our experts for help. That ounce of prevention more than often is the PROTEX Packing Pad...the *Superior Cushioning* protection that costs less.

Huge claim payments represent a serious economic loss. Aside from the monetary damage, which must be proved, there is the annoyance and expense of processing claims. To avoid that many legitimate claims are never filed. In such cases customers just stop buying. Are you running that risk?

AMERICAN EXCELSIOR CORPORATION
1000-1020 North Halsted St., Chicago 22, Illinois

PROTEX PACKING PADS

AMERICAN EXCELSIOR CORPORATION PROTEX CHICAGO, ILL.

THE SIGN OF *Superior Cushioning*

NATIONWIDE DISTRIBUTION

SEE US AT AMA PACKAGING EXPOSITION—Booth 901

Laboratories are interested in the technical side of packaging and the need for information in this field is found in your Technical Section. I cannot see how anyone interested in packaging can afford to do without it.

Henry J. Howlett
Container Laboratories, Inc.
New York.

Packaging men depend on many sources to keep abreast of the times; however, the information published in your magazine has been my main source of information for years. May you continue to supply us with timely, realistic and dependable data in the future as you have in the past.

H. Earl Nack
Sharp & Dohme
Philadelphia.

I have known and read MODERN PACKAGING almost, I believe, from its first year of publication. I doubt if anyone interested in packaging, either buyer or seller, could go through the pages of one issue without gaining some useful information.

F. G. Jewett
American Can Co.
New York.

Congratulations on your 25th anniversary!

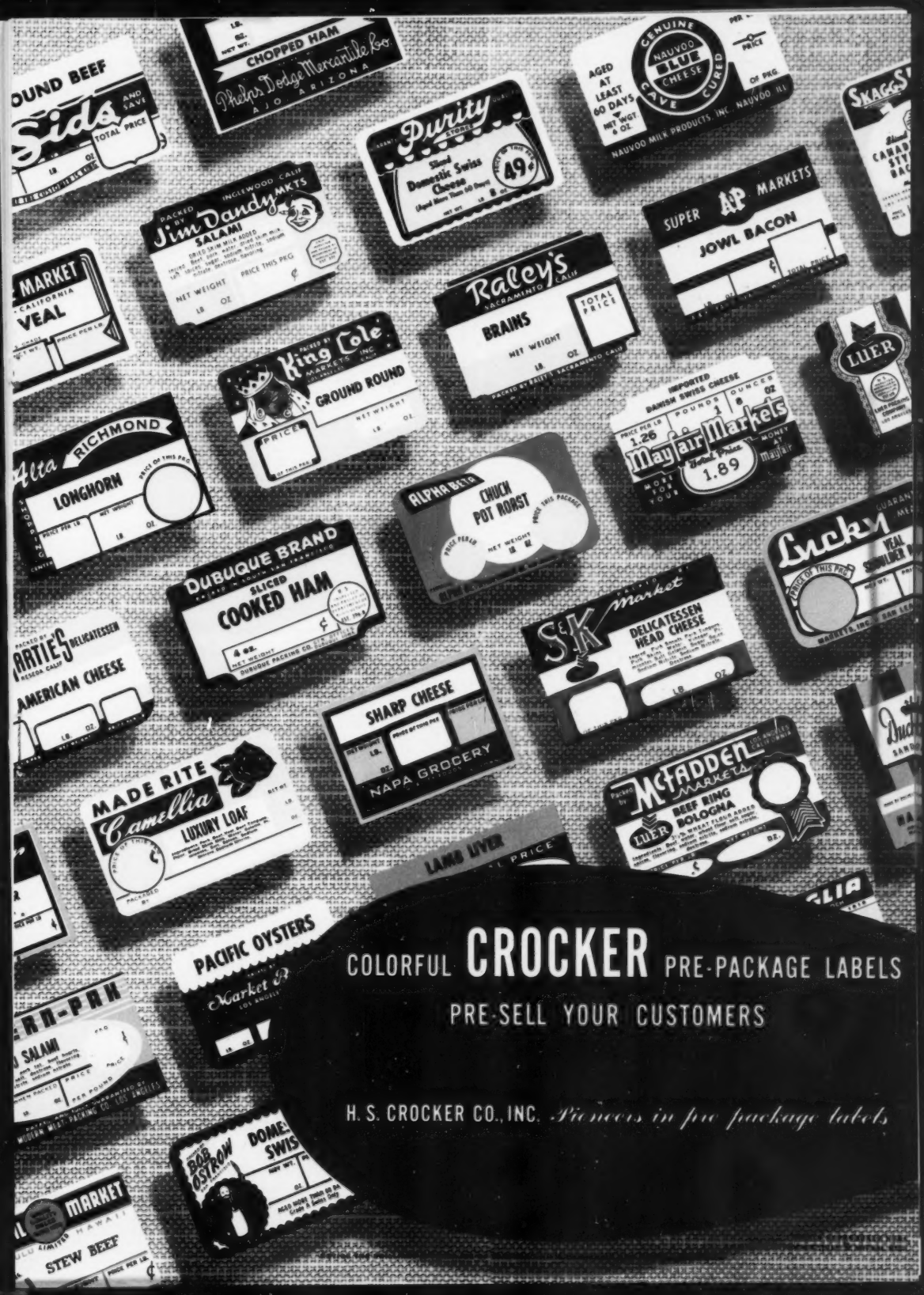
We have found MODERN PACKAGING a very helpful magazine which supplies facts that can be applied to practical, everyday problems. It also permits us to keep up with the latest trends in packaging. We would be lost without it.

E. H. Balkema
Colgate-Palmolive-Peet Co.
Jersey City, N. J.

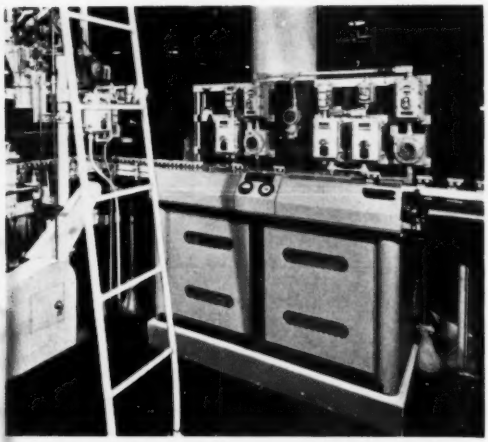
You've done a grand job over the years and today the magazine is, as it has always been, the "bible" of the packaging industry.

As you know, our company has been one of your advertisers from the very beginning of MODERN PACKAGING and we are happy to have contributed in a small measure, at least, to the continued success of your magazine. By the same token, you have contributed to our success, too, and we are grateful.

MODERN PACKAGING is always at hand here at Peters. . . . Editorially, as well as in all other departments, the magazine is "tops." What it has contributed to the packaging industry cannot be measured. . . . To you and to your associates, many of whom have


CHOPPED HAM
Phelps Dodge Mercantile Co.
AJO ARIZONA
Purity
Sliced Domestic Swiss Cheese
49¢
GENUINE NAUVOO BLUE CHEESE
AGED AT LEAST 60 DAYS
NAUVOO MILK PRODUCTS, INC. NAUVOO, ILL.
SUPER A&P MARKETS
JOWL BACON
Jim Dandy MKTS
SALAMI
Raley's
BRAINS
King Cole
GROUND ROUND
IMPORTED DANISH SWISS CHEESE
Magnair Markets
Total Price
1.89
LUER
RICHMOND
LONGHORN
ALPHA BETA
CHUCK POT ROAST
DUBUQUE BRAND
SLICED COOKED HAM
Lucky
S&K Market
DELICATESSEN HEAD CHEESE
AMERICAN CHEESE
SHARP CHEESE
NAPA GROCERY
MADE RITE
Camellia
LUXURY LOAF
McFADDEN MARKETS
BEEF RING BOLOGNA
LAMB LIVER
PACIFIC OYSTERS
STEW BEEF
COLORFUL CROCKER PRE-PACKAGE LABELS
PRE-SELL YOUR CUSTOMERS
H. S. CROCKER CO., INC. Pioneers in pre-package labels

Stop at EXACT WEIGHT Booth 750 for



One of four EXACT WEIGHT Selectrols electronically checkweighing Kremel packages in the Corn Products Co. plant, Chicago, Ill.

Answers to Man-power Shortage and Lower Cost Checkweighing . . .

This year's packaging show is important to you for two reasons (1) seeking new or replacement materials with which to package your products (2) studying new equipment to replace man-power shortage and lower costs. See EXACT WEIGHT'S new Selectrol, an automatic check-weigher separating packaged products into three classifications . . . underweight, exact weight, and overweight. This new unit solves "mispackaging" by eliminating underweight packages as well as overweight containers . . . removes the human element (no labor needed) . . . cuts packaging costs materially . . . does the work by electronic means at speeds up to 120 units per minute in capacities of from 2 ozs to 2 lbs. See a complete demonstration with actual product selection. Trained electronic engineers, able to advise you with your problem will be present. Mark this announcement and file in your brief case for your personal attention at the show. Solve one of your most perplexing problems, "How much is in the package."

See it at
EXACT WEIGHT
Booth #750
Public Auditorium
Atlantic City
April 1-4
1952

EXACT WEIGHT SCALES
Industrial Precision
THE EXACT WEIGHT SCALE COMPANY
914 W. Fifth Ave., Columbus 8, Ohio
2920 Bloor St., West, Toronto 18, Canada

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DO YOU NEED
STEEL STRAPPING?

Now is the time to order Allegheny STEELBAND strapping, seals, tools, and accessories to insure your present and future needs. Our company is rapidly expanding to meet the growing demand for our products. Your inquiry is invited.

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Box 716, Pittsburgh 30, Pa. WAlnut 1-7100

STRAPPING AND SEALS | STEELBAND | ACCESSORIES AND TOOLS

VERTICAL PROCESSING *means* Quality Control!

We Convert Our Own Materials
We Extrude Our Own Materials

POLYETHYLENE BAGS
PRINTED OR PLAIN

We will work with you to create special packages where stock items won't fill the bill. Write today, outlining your requirements.

PACKAGING PLASTICS, Inc.
17 Williams Avenue, Brooklyn 7, N. Y.

also contributed much to the progress of packaging, I wish continued success in the great job you are doing for the industry and our country's welfare.

H. Lyle Greene
Peters Machinery Co.
Chicago.

MODERN PACKAGING has not only kept its subscribers and readers informed about the countless changes taking place in the rapidly developing packaging industry, but has also contributed in no small measure to the art and science of the industry. It fully deserves its pre-eminent place in the field of packaging publications.

Joel Y. Lund
Lambert Pharmacal Co.
St. Louis, Mo.

It seems like a short time ago when you called on me 25 years ago and said you were going to publish a packaging magazine. I was enthusiastic about this because at that time there were no trade magazines catering to the packaging industry and I felt the packaging industry was a very important field, so we were in full accord with your efforts and have been consistent advertisers with you starting with Vol. I, No. 1.

You have done a wonderful job for the packaging industry. The name MODERN PACKAGING means just what it says. Twenty-five years ago people did not think in terms of packaging. Now everything is in packages and MODERN PACKAGING has had a major part in making people "package minded" and educating them in the various phases of packaging.

C. E. Schaeffer
Stokes & Smith Co.
Philadelphia.

You and your splendid organization have contributed substantially to the growth and development of the packaging industry over this past quarter-century, while growing and developing with it. In fact, MODERN PACKAGING has always been out in front, leading, directing and shaping that growth.

Frank A. Biederman
Kimberly-Clark Corp.
Neenah, Wis.

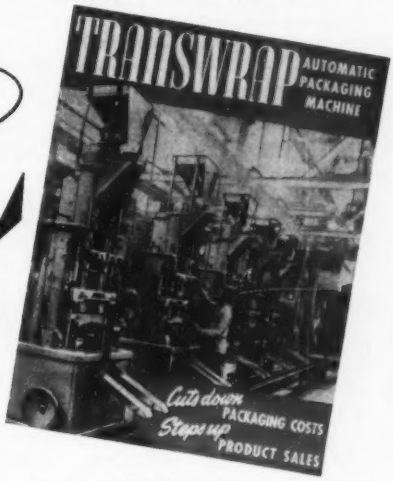
The thing for which MODERN PACKAGING should be praised mostly is that it aided in making the U.S.A. package conscious. The All-American Package Competition in the early days actually forced the issue and I still look with

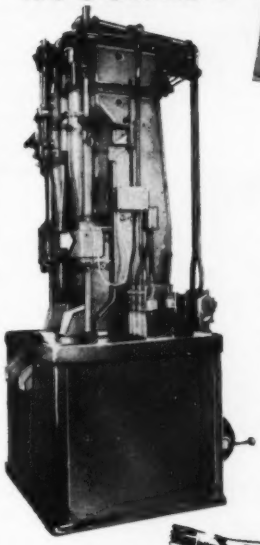
If you package these



POWDERS TABLETS FREE FLOWING SOLIDS LIQUIDS OR SEMI-LIQUIDS

you'll want this brochure





Gives complete details on economical, automatic packaging with Transwrap equipment. Tells how you can cut your packaging costs . . . and step up your product sales. Helps you uncover the hidden profits in your production line!

Transwraps handle a wide variety of products, in sizes from 1¼" x 1½" to 5¼" x 13"; by volume, from 5 cu. in. to 80 cu. in. Helps your difficult schedules—at 40 to 150 pkgs. per minute!

LIQUID FEED UNIT, SHOWN—designed to package all types of liquids and semi-liquids. Output 40 to 120 per min.—5 cu. in. to 80 cu. in.; pillow or fin-seal pkgs., all heat-sealing materials, sizes—1-13/16" x 3" to 5¼" x 13". Pressure feed by positive displacement piston type pump, or small Bosch-type pump. 4' x 5' x 8'; 2150 lbs.; ¾ h.p. motors, full load 1600 w.



TRANSPARENT-WRAP MACHINE CORP.

USE THIS COUPON FOR FREE 8-pg. BROCHURE

TRANSPARENT-WRAP MACHINE CORP.
142 Rt. 17, Hasbrouck Heights, N. J.

NAME_____ TITLE_____
COMPANY_____
ADDRESS_____
CITY_____ STATE_____

pride on the prize plaque which we received in 1941. . . . Good luck and prosperity for the next quarter-century.

Roy Johnson
Arenco Machine Co.
New York.

I believe I have read nearly all of the issues and I consider MODERN PACKAGING the best all-around magazine in the field of packaging. A number of our problems have been solved by articles . . . and we have received many worthwhile suggestions which we adopted.

Several questionnaires have been received by me asking my opinion of different magazines and the quality of yours has invariably caused me to list it at the top. Best regards and continue the good work.

H. F. Brownell
McKesson & Robbins
Bridgeport, Conn.

I congratulate you on the 25th anniversary of MODERN PACKAGING and the magnificent job you have done.

Keller-Dorian Corp. opened its first office in the United States just shortly before your first issue and we have enjoyed immensely our long association with you and your magazine. We honestly believe that MODERN PACKAGING has contributed immeasurably toward design appreciation throughout the years, with the result that the packaging field has benefitted.

John L. Silvin
Keller-Dorian Corp.
New York.

. . . You are to be congratulated for the wonderful assistance you have built for the packaging industry.

H. H. Replogle
National Production Authority
Washington, D. C.

MODERN PACKAGING is a magazine that grew up with the packaging industry. Just as the industry has increased in stature over the past quarter-century, so also has MODERN PACKAGING. There are few trade magazines in any field that compare with it in complete and progressive coverage of every phase of the industry.

Over the years I have found MODERN PACKAGING being constantly referred to and quoted by a great majority of the executives who constitute the potential market for our machinery. Our company, too, has found it essential in keeping abreast of developments in the packaging industry.

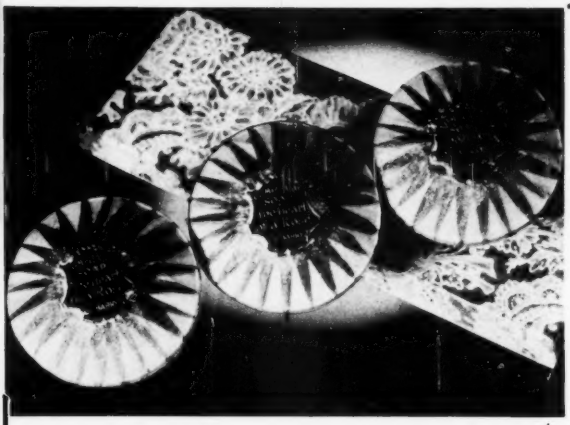
Best wishes to MODERN PACKAGING for another 25 years of progress.

Oskar W. Wikstrom
United States Automatic Box
Machinery Co., Inc.
Boston, Mass.

A quarter of a century of successful operation in itself stands for accomplishment. It would be my opinion that MODERN PACKAGING from its beginning has filled a need of package users and package producers. Beyond that I am sure that over the years the American consumer—the ultimate user of the products of all of us in industry—has been greatly benefitted through the improved utility, appearance and economy of packages made available in this country. Congratulations . . .

Smith Rairdon
Owens-Illinois Glass Co.
Toledo, Ohio.

It hardly seems possible that over 25 years have slipped by since the days when I occasionally joined you (Mr.



JUST ONE OF MANY-

An example of one of many practical wraps made on our semi-automatic Wrapping machines.

For this attractive soap wrap the Dubarry Perfumery Co. Ltd. use the "STRAND" Precision Pleater and a coloured embossed "Cellophane."

We can give you quick delivery of machines for wrapping articles of a wide range of shapes and sizes in all kinds of materials.

Write or, better still, airmail a sample to be wrapped and returned.
We are exhibiting at The Canadian International Trade Fair, Toronto—

June 2nd-13th.

CHARLES E. DOUGLAS & CO., LTD. **86 STRAND, LONDON, ENGLAND**

"PRESS TIME" HEADACHES SOLVED
FOR
WESTERN ROTOGRAVURE PRINTERS



EAST AND WEST . . . Rotogravure Printers are now assured of fast, quality engraving service through SGS. Southern Gravure Service of Louisville, Kentucky, has installed the *first complete Intaglio Engraving plant on the West Coast.* The new company, at 1841 Adeline Street, Oakland, California, will be devoted entirely to servicing Rotogravure Printers in the Western area.

Facilities will include:

PHOTOGRAPHIC PREPARATORY—CYLINDER BASE MAKING—CYANIDE COPPER PLATING ACID COPPER PLATING—ENGRAVING, CHROME PLATING AND PROOFING

(RECONDITIONING SERVICE: REPAIRS, RECHROME—48 HOURS)

SGS DELIVERS IN THREE WEEKS

The fast service of SGS covers every size cylinder and every operation, including chrome plating. For details on rapid, complete, quality gravure-cylinder service, write us TODAY!

(SGS are not printers and have no financial interest in any printing firm.)

Licensed to use the Dultgen Process

SOUTHERN GRAVURE SERVICE
INCORPORATED
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LOUISVILLE 2, KENTUCKY

SOUTHERN GRAVURE SERVICE OF CALIFORNIA
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OAKLAND, CALIFORNIA

COMPLETE GRAVURE CYLINDER SERVICE

New, Faster Delivery Schedule for CECO *Adjustable-Automatic* Cartoners

REG. U. S. PAT. OFF.



SEND FOR CECO BULLETIN

Our large new plant is now in full production. With a very low investment and within a very short time you can enjoy the money-saving advantages of mechanized packaging with a CECO Cartoner.

All CECO models are adjustable easily for a wide range of carton sizes without special tools by unskilled help. Long or short runs are handled economically. Simplicity of construction keeps maintenance costs low. Savings in labor alone should repay your small investment in less than a year. Your cartons will be neater, cleaner, and stronger. Write, wire, or phone for details.

CECO MODELS

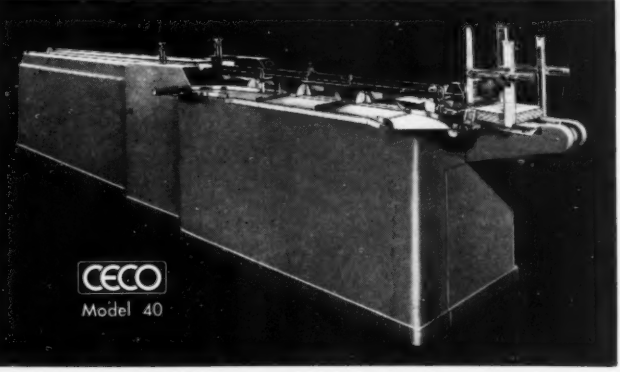
Model	Carton Feeding and Opening	Product Insertion	Sealing or Tucking
45	Automatic	Automatic	Automatic
40	Automatic	Manual	Automatic
3901	Manual	Manual	Automatic

All CECO models can be arranged to glue-seal both ends, seal one end and tuck in the other, or tuck in both ends. Range of adjustability can be varied as required.

Visit Our Booth at the Show

Features
CECO MODEL 40

- ★ Adjustable quickly for different sizes and speeds without tools.
- ★ Handles any products except un-bagged sifting items.
- ★ Seals or tucks both ends automatically, simultaneously.
- ★ Produces square, neat cartons.
- ★ Portable, self-contained.



CONTAINER EQUIPMENT CORPORATION

Packaging Machinery Specialists

78-88 LOCUST AVENUE, BLOOMFIELD 2, N. J.

BOSTON • CHICAGO • DALLAS • JACKSON
SAN FRANCISCO • SAVANNAH • TORONTO

MEMBER, PACKAGING MACHINERY MANUFACTURERS INSTITUTE

Breskin) and Ted Charlton at lunch to listen with fascination to your plans for starting a new magazine. As a modest contributor to your previous magazine, I had learned a lot about your problems in the publishing business and had, as you may remember, even worked with you in the preparation of a series of articles on the proper sealing of corrugated boxes. . . .

Through my association with MODERN PACKAGING for the past 25 years, I have learned a great deal about the subject and, in addition, have been able to build up a regular reference library consisting of indexed clippings, most of which are from your magazine. Naturally, I have never missed an issue since Vol. I, No. 1, and this has been a separate subscription from the company one, because I have to clip out so much from each copy for these reference files. Looking over them the other day, I was amazed at the number of technical articles that have appeared, particularly in recent years. . . . Of equal value have been the clippings in regard to packaging methods in individual companies, and particularly your more recent series, *Packaging's Hall of Fame*. I will need some more filing cabinets soon, but the scissors will go on working with each issue.

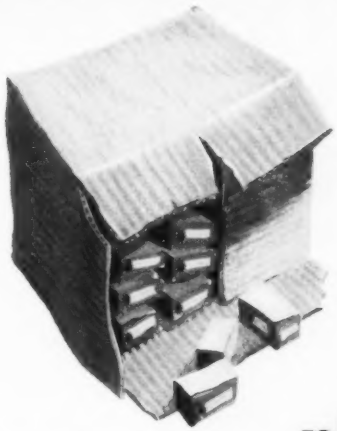
Your first 25 years have really been a triumph, but we all wish you even greater accomplishments in the years to come.

J. D. Malcolmson
Robert Gair Co., Inc.
New York.

MODERN PACKAGING has given a great stimulus to packaging in all its applications. From its very inception it was, and continues to be, the leader in bringing forth new ideas and carrying them through.

George Mohlman
Mohlman & Reis, Inc.
Suffolk, Conn.

We at Milprint, Inc., a firm which a year ago celebrated its 50th anniversary in the packaging field, know the strides which have been made in packaging in the last 25 years. We congratulate MODERN PACKAGING, therefore, on its 25th anniversary and offer our compliments to a magazine which has played such a large part in the development of the package from just an enclosure or container of goods to a merchandising vehicle with eye appeal and sales appeal. Milprint has been a consistent advertiser in MODERN



after all your planning

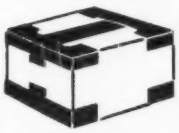
. . . to make a better product

. . . after all the advertising and sales expense to move it . . . it really *hurts* to lose good will and customers because merchandise doesn't arrive safely at destination—or to lose money replacing damaged goods.

Shipping losses have become a serious drain on modern business—more than $182,000,000 worth of merchandise has been damaged in transit since 1948, says the Association of American Railroads.

Just how much *your* company's share of this appalling loss amounts to depends to a large extent on the closure method your shipping department employs in packaging merchandise for shipment.

There is one carton closure method that will do the job most efficiently.



Recent impartial tests prove
Your Shipments are SAFEST Sealed with Gummed Sealing Tape

This fact was conclusively proved in recent impartial tests made by Container Laboratories, Incorporated, of New York. There, the six most widely used closure methods were subjected to rigid comprehensive performance tests simulating actual conditions met by shipments in transit. And *in all the tests* GUMMED SEALING TAPE PROVED BEST.

Would you like to have the head of your shipping department see the results of these tests? We shall be glad to see that he is supplied with literature describing them and telling HOW TO SEAL IT RIGHT WITH GUMMED TAPE. There's a brochure, too, for executives that tells the complete story. Just take a moment and fill out the coupon.

THIS ADVERTISEMENT AND OFFER WILL NOT BE REPEATED USE THIS COUPON NOW

THE GUMMED INDUSTRIES ASSOCIATION, INC.
19 WEST 44th STREET, NEW YORK 18, N. Y.

M

Please send me brochure for executives.
Name..... Title.....
Please send test data and other literature to:
Shipping Dept. Head.....
Firm Name .....
Address .....
City..... Zone..... State.....

We invite you to use the professional services of the

ORKIN INSTITUTE OF INDUSTRIAL SANITATION

1. Analysis of sanitation problems, whether recognized or unrecognized.
2. Development of plan for solution based on:
   a. Degree of sanitation desirable b. Budget limitations
   c. Methods applicable to situation
3. Inspectional program.
4. Advice on practical problems resulting from activities of Food and Drug and other regulatory bodies.
5. Appraisal and advice on pest control programs.

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Executive Director

HERMAN L. FELLTON
Vice-President

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Operational policies of the Institute will be established by an independent board of advisors consisting of individuals who are recognized authorities in sanitation.

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Specialists in

Sanitary Engineering
Entomology
Bacteriology
Chemical Engineering
Dairy Science
Industrial Pest Control
Industrial Fumigation
Plant Pathology
With industrial and regulatory experience

ORKIN

713 West Peachtree Atlanta, Georgia

INSTITUTE OF INDUSTRIAL SANITATION

Advancing Sanitation Across the Nation



How to Fabricate

SHEET PLASTIC

Rapidly . . . at LOW COST

Write for this booklet showing latest Taber machines and methods of fabricating sheet material .005" - .030" thickness.

PLASTIC MACHINE DIVISION

Taber INSTRUMENT CORPORATION
119 Goundry St., North Tonawanda, N.Y.

ALSO WRITE FOR FREE LITERATURE ON
★ V-5 Stiffness Gauge ★ Scratch and Toughness Testers for Plastics

PACKAGE BY COUNT
to 300,000 parts per hour

Automatically counts and packages accurately the following parts, to any set quantity



nuts	tablets
screws	pills
lock washers	capsules
roofing nails	candies
dowels	coated gum
studs	sintered parts
rivets	machined parts
eye screws	plastic parts
bushings	balls
electrical parts	discs
molded parts	rubber plugs

. . . and a variety of other objects.

Our new COUNT-O-MATIC "E" or our established COUNT-O-MATIC "A" can solve your counting and packaging bottlenecks instantly. Either of these machines may be able to handle your complete line of products. See these 2 unusual machines in operation at the AMA Packaging Show in Atlantic City. Booth #730-732

U. S. ENGINEERING COMPANY
40-24 22nd Street Long Island City 1, N.Y.

PACKAGING for years and is assured that this advertising has added prestige and stature to our firm. . . . We know that MODERN PACKAGING has contributed a real service to the packaging buyers of America.

Roy E. Hanson
Milprint, Inc.
Milwaukee, Wis.

We have always considered this the blue book of the packaging field. . . . We feel that it adds prestige to a company to appear in MODERN PACKAGING.

K. B. Neff
The Exact Weight Scale Co.
Columbus, Ohio.

I came to New York two years after the initial issue of MODERN PACKAGING. My assignment was to establish a package division in the New York office of The Texas Co. My previous experience had been in accounting work at their plant which made cans and cases and filled and shipped them. I was badly in need of help and guidance. . . . MODERN PACKAGING and *Modern Packaging Encyclopedia* have been my packaging bibles over the many years.

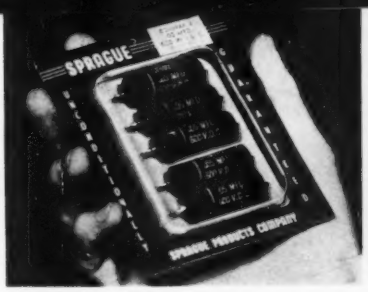
R. Chester Reed
The Texas Co.
New York.

Our customers tell us that they rely on MODERN PACKAGING for technical information and for details about new methods and new materials. . . . Your readers have real confidence in the publication, knowing that you will not abuse that confidence. We hope the next 25 years will bring even greater growth to MODERN PACKAGING and to our industry.

Wickliffe Jones
R. A. Jones & Co., Inc.
Cincinnati.

I enjoy reading MODERN PACKAGING monthly because of the up-to-date, informative texts on pertinent packaging matters. I particularly like them because you very definitely do not have any axe to grind and the subject matter is always written so impartially. I also believe it is the only packaging magazine that has a progressive policy on technical research of packaging materials and equipment. Last but not least, I find that I must read the advertisements for they are very definitely informative.

John A. Warren
American Home Products Corp.
New York.



Plastic Domes—We make the dome, you make the rest. Protection and visibility, maximum economy. Sprague Products Corp., North Adams, Mass.

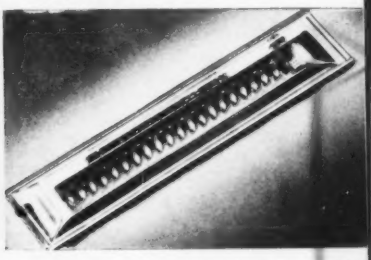
Plastic Card Covers—Your card, our dome. One or more bubbles, one or more tablets each. Beautiful visual one-unit detailing. Ayerst, McKenna & Harrison Ltd., N. Y.



Plastic Displays—Made exclusively by forming. Crystal clear. The elite of the display world. Seagram-Distillers Corp., New York, N.Y.

Formed Jewelry Packages—Dramatizes and protects valuable merchandise. Emphasizes the product, not the package. Jacoby-Bender, Inc., New York, N.Y.

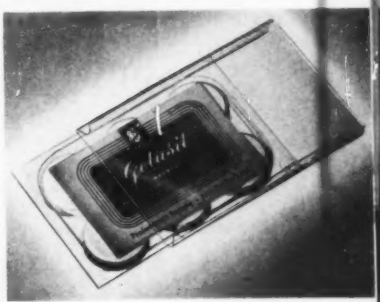




PLASTIC ARTISANS

Unique items with distinct novelty appeal and genuine utility . . . made by drawing, forming and fabricating on ingenious automatic equipment. Printed, if you want, in line rotogravure. It will pay you to check our prices. Plastic Artisans, Inc., 70 Westchester Avenue, White Plains, New York.





Formed Pharmaceutical Packages—Wide range of shapes to cradle suppositories, capsules and the like. Wyeth, Inc., Philadelphia, Pa.

Slide Cover Boxes—Promotional sampling of tablets and other pharmaceutical products at its best. Warner-Hudnut, Inc., New York, N.Y.

Formed Novelties—Complete line of unusual reminder novelties which feature actual product samples. Made of formed acetate sheet. Paper weights, pocket packages, desk novelties, bookmarks, and other eye-catching styles. Ayerst, McKenna & Harrison, Ltd., New York, N.Y.



Coming Soon...

REET®

VINYL PLASTIC FILM IN "LAY-FLAT" TUBULAR FORM



Versatile, flexible, heat sealable, and with improved tear strength and other physical properties, *REET* vinyl film will soon be available on rolls in seamless tubular form in a variety of widths, thicknesses, and formulations (general purpose, non-toxic, military and other special applications) to meet every packaging requirement.

Extruded *REET* will also be available on continuous rolls in:



unfolded single sheet form, single sheet folded down the center, or unfolded double-sheet form.

These new products will soon join the popular REET family of calendered unsupported vinyl film and sheeting in embossed and calender-finishes —tailored for your needs in general purpose as well as other special formulations designed to meet your particular requirements.

At The 5th National Plastics Exposition March 11-14 Convention Hall, Philadelphia BOOTH 604

If it's REET® it's right!

At The 21st National Packaging Exposition April 1-4 Public Auditorium, Atlantic City BOOTH 919

ROSS & ROBERTS, Inc.

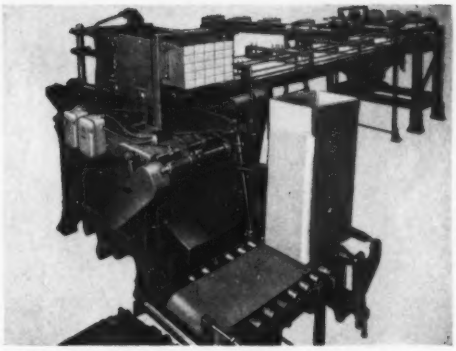
Stratford, Conn. West Haven, Conn.

ROSS & ROBERTS SALES CO., INC. • 350 Fifth Avenue, New York 1, N. Y. • LO 3-5184

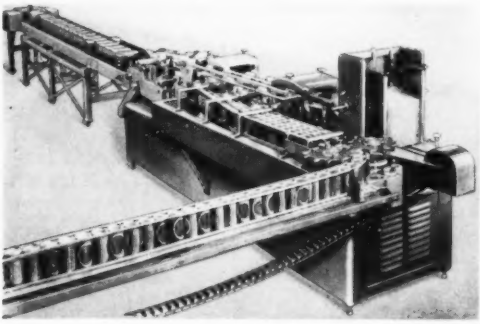
Sales and Technical Field Representatives

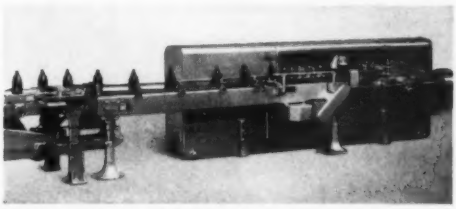


PACKAGING WITHOUT DAMAGE to cans, bottles, bags or cartons is assured on high speed Standard-Knapp Bottle and Can Packers.



PEAK EFFICIENCY is maintained on packaging lines in many fields with the aid of Standard-Knapp Collectors and Carton Packers.





FOR CLEANING NEW BOTTLES, the H-E type Rinser handles each unit individually. Standard-Knapp machines are automatically preferred for automatic packaging.

FOR MULTIPLE PACK CARTONING of flat or cone top cans, this machine sets up cartons, loads them, then glues and seals them.

Automatic Packaging that Stands Up to Constant Operation

You get precisely the line speed you want with Standard-Knapp packaging machinery, but that's only part of the story. Just as important, you get durable performance — the month after month production — that keeps your cost curve going down. Durability is an inherent design characteristic in Standard-Knapp automatic packaging machines — put it to work for you.



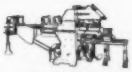
NEAT SHIPPING CASES, firmly glued and sealed, are delivered at high speed by Standard-Knapp Gluers and Sealers.

STANDARD-KNAPP

Division of Emhart Mfg. Co.

PORTLAND, CONNECTICUT

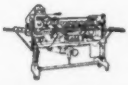
Only the best is good enough



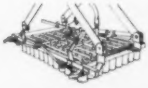
UNLOADERS and CONVERGERS



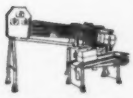
UNSCRAMBLERS and DUMPERS



LABELERS



PALLETIZERS



CAN PACKERS and BOOSTERS



BOTTLE PACKERS and CASE PRINTERS



RINSERS

FOR: FOODS • PHARMACEUTICALS and COSMETICS • BEVERAGES • SOAPS and CHEMICALS • TEXTILE PRODUCTS • PAPER PRODUCTS • OILS • TOBACCO PRODUCTS • APPLIANCES • METAL PRODUCTS • PAINTS

Robertshaw

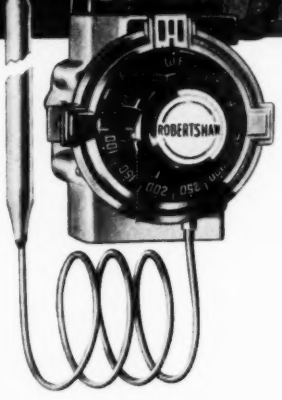
SERVES THE PACKAGING INDUSTRY!



Robertshaw®

MODEL D-1

THERMOSTATIC CONTROL



★ DOUBLE POLE

★ SINGLE THROW

★ DIRECT ACTING

(breaks circuit on rising temperature)

WHEREVER the packaging industry uses heat controls, there you will find durable, dependable Robertshaw Controls, famous for their flexibility, simplicity and day-in, day-out performance.

Model D-1, for example, requires no separate "Off" switch. Mechanical over-center snap-action make-and-break mechanism is actuated by a hydraulic thermostatic element consisting of bulb, capillary tube and diaphragm. Fine silver contacts and bridges. Case-hardened steel levers and supports. Stainless steel, electrically welded diaphragm. Entire mechanism mounted in a pressed steel body insulated with Bakelite. *Write for catalog.*

In Home and Industry, *EVERYTHING'S UNDER CONTROL*



Robertshaw THERMOSTAT DIVISION

ROBERTSHAW-FULTON CONTROLS COMPANY

YOUNGWOOD, PENNSYLVANIA

21st Show

(This listing continued from page 225)

barrier materials; Amsco foot and motor driven jaw style sealers for cellophane and barrier materials; Amsco conveyors; Frazier filling machines. *Personnel:* (AMSCO) E. E. Messmer, J. D. Sylvester, J. D. Keenan. (MILLER) M. H. Corley, J. P. Corley, R. H. Freeman, J. M. Hagberg, F. Kocarek, P. Freeman, C. W. Montgomery, F. J. Faletti, T. R. Lanigan. (SIMPLEX) R. Gaubert, M. W. Smith. *Hotel:* Ambassador.

ARABOL MFG. CO. *Booth 406.* Packaging with Arabol adhesives. *Personnel:* E. E. Diedrichs, A. J. Leary, F. McCourt, L. Eickstedt, A. Gnewuch, J. Gerhart, T. Erickson, R. Ellis. *Hotel:* Claridge.

ARENCO MACHINE CO., INC. *Booth 237.* Operation of an Arenco type CAB automatic tube filling machine. *Personnel:* R. Johnson, H. F. Morse, T. Gronberg. *Hotel:* Dennis.

ARKELL & SMITHS, *Booths 1177, 1178.* Display of original patent models of bag machines and photographs of modern layouts in bag manufacturing. Series of bag types made by the company. *Personnel:* S. S. Yates, S. Y. Carnes, R. P. Smith, E. E. Brown, H. C. Peterson, Jr., W. H. Plank, R. P. Kessler, A. F. Carroll, D. D. Harrison, G. S. Harvey, W. E. Noble, R. Woodson, B. J. Ainsworth, R. S. Ober, C. W. Harvey. *Hotel:* Claridge.

ARVEY CORP. *Booth 124.* Display of Lamcote—plastic film laminations for the graphic arts industry; the new "Show Case" over-all laminated carton; industrial laminations of various combinations of papers, plastic films and foil; seven approved Government barrier materials; multicolor printing on all types of plastic films, foils and papers, both aniline and gravure process. *Personnel:* W. H. Newton, R. C. Hazen, W. R. Dreiling, D. T. Lind, J. O'Brien. *Hotel:* Shelburne.

ASKANIA REGULATOR CO. *Booths 849, 851.* Edge position control, also model paper-winding machine equipped with control. Simplicity of system shown by components in working order. *Personnel:* G. A. Heinemann, R. J. Kroth, R. J. Matteson, G. Miller. *Hotel:* Dennis.

ASSOCIATED COOPERAGE INDUSTRIES OF AMERICA, INC. *Booth 207.* Wooden barrels and kegs. *Personnel:* F. P. Hankerson.

ATLANTIC GUMMED PAPER CORP. *Booths 1071, 1075.* Gummed sealing tapes and corrugators box tapes. *Personnel:* A. Warshaw, N. Warshaw, S. War-

John Dale OF ENGLAND

for quality containers



Collapsible tubes, metal containers, closures to your exact specification—and made with p-r-e-c-i-s-i-o-n

AGENTS IN INDIA

HOARE MILLER & COMPANY LIMITED, 5 FAIRLIE PLACE, P.O. BOX NUMBER 63. CALCUTTA, 1.

JOHN DALE LIMITED

JOHN DALE LIMITED, BRUNSWICK PARK ROAD, NEW SOUTHGATE, LONDON, N.11, ENGLAND. TEL: ENTERPRISE 1272



For Specialty Envelopes
I always Check P. L. ANDREWS First!

custom designed and standard styles for every envelope application

packaging
mailing • display

- glassine
- cellophane
- metal clasp
- string & button
- phono record sleeves
- phono record mailers
- sift proof
- special sizes & shapes
- window
- filing jackets
- gusset type
- compartment
- Armor-Edge*

The packager who asks P. L. Andrews first, rarely has to check a second supplier. P. L. Andrews makes just about every type of specialty envelope under the sun.

Users know that P. L. Andrews manufactures envelopes ranging from tiny half-inch square midgets for jewelry parts to giant jackets for metal stampings, printing mats, advertising displays and the like.

P. L. Andrews envelopes are versatile and, generally speaking, less expensive than other package forms. Ask us to show you how a custom designed envelope can do an unusually fine packaging job for your product.

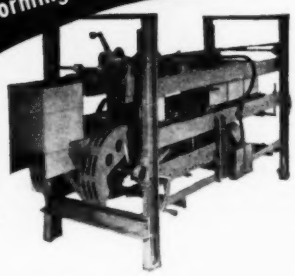
* *Patent Pending*

P. L. ANDREWS CORPORATION

1328 Broadway — New York 1, N. Y.

THE HOUSE OF ENVELOPE SPECIALTIES

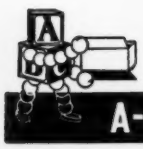
A shorter, narrower, simpler, and better performing case sealer



Two Models on Exhibit at NATIONAL PACKAGING EXPOSITION
Booths 639-640
Atlantic City, N. J.
April 1-4

THE NEW A-B-C *Junior* CASE SEALER

The A-B-C Junior Case Sealer automatically seals corrugated shipping containers in only a fraction of the floor space ordinarily required. Operation is fast—trouble free—economical. A completely new flight chain construction virtually eliminates carton jamming . . . Three semi-automatic models are available to fit most case sizes. Write today for details and floor plans.



A-B-C PACKAGING MACHINE CORP.
QUINCY, ILLINOIS

TOMPKINS' LABEL SERVICE

QUALITY LABELS SINCE 1928

LABELS of ALL KINDS for EVERY NEED

- ***AUTOMATIC APPLICATION IN ROLLS or SINGLE CUT*** — for fast, economical quantity application
- ***HEAT-O-SEAL*** — for Heatsealing labels to Pre-Packaged Foods-Meats, Bag-fold Labels
- ***GREASEPROOF*** — for fresh-looking cakes, candies, sandwiches
- ***FOIL*** — to dress up your package
- ***EMBOSSED*** — to give your package that quality look
- ***TYPE*** — for Inexpensive Labels
- ***ENGRAVED*** — for outstanding High Gloss Labels
- ***MULTI-COLOR*** — up to 4 Colors for best display
- ***GUMMED*** — for Addressing Labels, Advertising Labels
- ***UNGUMMED*** — for Labeling Machines and all Label uses

We'll be there — Visit Our Booth #611
21st National Packaging Exposition
APRIL 1-4, 1952 ATLANTIC CITY, N. J.

TOMPKINS' LABEL SERVICE
FRANKFORD AVE. AT ALLEGHENY AVE.
NEW YORK N. Y. PHILADELPHIA 34, PA. ATLANTA GA.

shaw, J. Warshaw, J. Oliver. *Hotel:* Shelburne.

AUTOMATIC WEB CONTROL MFG. CO. *Booths 256, 258.* Various types of web-guiding equipment with emphasis on cambering roller method; new Greystone hydraulic constant batcher. *Personnel:* I. L. Fife, C. W. Brown, D. G. Fife, L. C. Stowell, G. E. Mansfield, J. H. White. *Hotel:* Dennis.

AVERY ADHESIVE LABEL CORP. *Booths 127, 129.* Kum-Kleen labeling method—Kum-Kleen pressure-sensitive labels, Avery electric label dispenser, semimatic labeling for product identification, trademarks, instructions, directions, informative labeling. *Personnel:* J. S. Torrey, H. R. Smith, R. S. Avery, M. Hamaty, J. H. B. Hedinger, Jr., M. Contreras, S. W. Merkin. *Hotel:* Shelburne.

BARRETT-CRAVENS CO. *Booth 639.* Operating display of materials handling equipment for "floor level" handling of materials and goods. Display of all types of lift trucks, skids, portable elevators, steel storage racks, new hydraulic pallet lift truck, combination skid and pallet steel storage rack. *Personnel:* O. M. Lund, C. E. Barnes, W. Cox.

BARTELT ENGINEERING CO. *Booth 271.* Exhibit of machine which makes, fills and seals a pouch-style bag in one automatic operation. Special feeders for unusual products. *Personnel:* D. Bartelt, W. T. Boston. *Hotel:* Claridge.

BECK, CHAS., MACHINE CORP., *Booth 621.* Demonstration of automatic roll sheet cutter embodying latest developments in cutting and feeding, all types of films; also razor-blade slitter and rewinder. *Personnel:* C. A. Beck, M. F. Dudeff, T. J. Barnes, III. *Hotel:* Ritz-Carlton.

BEMIS BRO. BAG CO. *Booth 350.* Bemis Cravity Packer 5101; display of complete line of samples of all the various products which Bemis manufactures. *Personnel:* A. B. Merriam, A. D. Hoeppner, A. Dalldorf, R. Highley, P. R. Bingaman. *Hotel:* Dennis.

BENSING BROS. & DEENEY, *Booths 260, 264.* Display of flexible packages and decorative specialties printed by the aniline process with BBD aniline inks. Extent of research and control involved in "custom-making" aniline inks for high quality printing. *Personnel:* J. J. Deeney, H. Bensing, Roy Bensing, Robert Bensing, M. Lousin, N. Cooper, T. Dench, A. Mueller, B. Haug, J. O'Donnell. *Hotel:* Shelburne.

BETNER, BENJ. C., Co. *Booth 633.* Coffee bags, flour bags, all types of

WRAP-ADE

AUTOMATIC CANDY POP WRAPPING MACHINE



SEE US AT THE NATIONAL PACKAGING EXPOSITION
Atlantic City
April 1-4, 1952
BOOTH No. 273

Can be converted to UNIT PACKAGER For High Speed MILITARY PACKAGING JOBS

COMPARE THESE EXCLUSIVE WRAP-ADE FEATURES

- Changes on feeding mechanisms convert machine to Unit Packager. Completely heat seals such small items as spoons, hard candies, etc.
- Uses 50 per cent less Cellophane.
- Simple in construction and operation.
- SPEED — 150 units per minute—or even higher speeds for small items. For some products, an automatic magazine is available for more economical production.

Write today for full information on this and other WRAP-ADE Packaging Machinery.

wrap-ade

MACHINE CO., INC.
83 VALLEY STREET, BELLEVILLE 9, NEW JERSEY
PHONE—BELLEVILLE 2-6150-1



LOOK us up at the
PACKAGING EXPOSITION
Atlantic City, April 1-4
BOOTHS 267-269

SEE



how to step up aniline printing quality with MOSSTYPE's

- *Rubber Plates & Design Rollers*
- *Mounter-Proofer Machine*
- *Art-to-Plate Service*



REMEMBER we serve package printers and converters all over the world

MOSSTYPE

MOSSTYPE CORPORATION and **MOSSTYPE ROLLER CO., Inc.**
33 FLATBUSH AVE., Bklyn. 17, N. Y.

specialty bags, including military specification packaging bags; machinery for closing, filling and handling paper bags. *Personnel:* B. C. Betner, Jr., H. W. Stevens, F. S. Hinkle, E. V. Ballard, J. Rex, J. Ackert, S. N. Williams, H. P. Williams, P. H. Clark, Jr. *Hotel:* Claridge.

BETTER PACKAGES, INC. *Booths 109, 113.* Display of the new CodeTaper #120—a tape machine with printer installed that codes, dates or identifies gummed tape as it is being dispensed; new SealLabelor and Automat labels—the new and first dispenser which mechanically ejects and moistens a label; line of improved Big Inch measuring tape dispensers marked by new features. *Personnel:* M. Waggoner, K. Hill, N. Campanaro, A. Smith, I. DeBlayker, J. Murphy, H. Smith, G. Lebherz, G. Meyer, J. Valestin, F. Smith. *Hotel:* Dennis.

BINER-ELLISON MACHINERY CO. *Booth 1244.* New model of a combination filling and labeling machine. *Personnel:* M. Young, A. McAdams, H. Seel, B. Rossmer, A. Lolli, T. Ellison, G. Mayberry. *Hotel:* Marlborough-Blenheim.

BOLTA PROD. SALES, INC. *Booth 965.* Boltaron; plastic injection molded items for packaging. *Personnel:* C. E. Holch, C. J. McCarthy, A. E. Read.

BORDEN CO. (CHEMICAL DIV.), *Booth 1013.* Display of packaging glues: Label glues for glass containers, foil and paper laminates; making or sealing shipping cases; case liners. *Personnel:* R. J. Lodge, H. J. Kiehn, A. C. Tepe, D. B. Laird. *Hotel:* Marlborough-Blenheim.

BROWN BAG FILLING MACHINE CO., INC. *Booth 112.* Model P. F. 100 automatic filling & sealing machine for filling small envelopes or packets; automatic filling & sealing machine for filling small screws and nails by count, also into packets. *Personnel:* J. J. Doyle, R. N. Wellington, W. E. Balzer. *Hotel:* Claridge.

BURT, F. N., CO., INC. *Booth 635.* Set-up boxes, cartons, transparent acetate boxes. *Personnel:* O. W. Honsberger, L. Hagner, J. Rau, W. C. Milsom, A. P. Diebold, R. J. Lowe, H. K. Dickerman, A. W. Buchanan. *Hotel:* Shelburne.

CAMERON MACHINE CO. *Booth 877.* Slitting and rewinding machine for plastic film. *Personnel:* H. Smith, R. Hardman, P. J. Lathrop, P. B. Withstandley. *Hotel:* Ambassador.

CARGO PACKERS, INC. *Booth 1175.* Various samples of packaging and packing in accordance with military specifications; Cargo cube calculator; Cargo silica gel dispenser head; Cargo spare parts table; Cargo air extractor; Cargo striper; electronic package tester. *Personnel:* J. B. Kupersmit, B. Krebs, D. Kamins, B. Green. *Hotel:* Traymore.

CELANESE CORP. OF AMERICA. *Booth 344.* Exhibit, "Up to Date with Acetate Packaging" will point up the importance of packaging in self-service selling of all types of products. Hundreds of packages will illustrate visible packaging programs, including the tart pie acetate window box said to have increased sales 500%. For the first time colored acetate films and their possibilities for packaging will be on display; also the new metallized acetate light and heavy weight films for food packaging. A defense packaging section will illustrate the growing number of combinations for acetate in the preservation of food and ordnance material. Displayed in a self-service refrigerator case will be pre-packaged fresh foods in acetate "breathing" wraps. *Personnel:* W. S. Landes, E. W. Ward, D. S. Hopping and sales personnel.

CELON CO. *Booth 720.* An assortment of customer packages sealed with Celons. *Personnel:* J. S. Adams, E. A. Vaughan, L. J. Trecek. *Hotel:* Dennis.

CENTRAL STATES PAPER & BAG CO. *Booth 205.* Bags, liners, case liners, and



Faster Filling with the ANDERSON PORTABLE BAGGER

Designed to handle foods, confections, and numerous products in metal, plastic, wood, and rubber. Operates with a minimum of effort at a maximum speed.

Simple adjustment for height . . . tilting forward or backward enables the operator to set machine at easiest working position.

Stainless steel trough with capacity of 200 bags. Adjustable to bag sizes. Blower with filter keeps bags clean and free from foreign matter.

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ANDERSON BROS. MFG. CO.
ROCKFORD, ILLINOIS

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SHOCK-COOLED

POLYFILM Pack-a-Liner

Polyethylene Film for Container Lining

Stronger Moisture-Proof Inner Protection

For Barrels

For Boxes

For Cartons

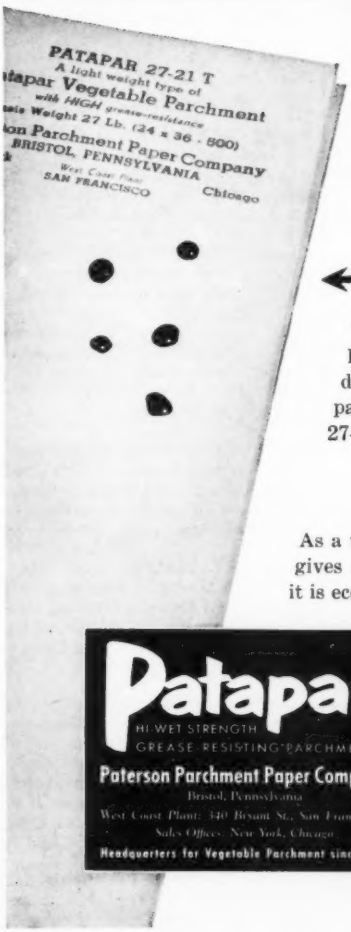
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Exclusive "Shock-Cooling" process gives "Polyfilm" (polyethylene packaging film) greater tensile and tear strength than ordinary film made from the same polyethylene resins. Buy the best. Buy "Polyfilm."

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- **Our Engineers** *Will Help Solve Your Packaging Problems.*
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NEW! PATAPAR 27-21T
light in weight . . .
. . . high in grease-resistance



Patapar 27-21T is a new type of Patapar Vegetable Parchment that is light in weight (27-lb) and – in addition to wet-strength – *extremely grease-resistant.* In actual commercial use, Patapar 27-21T has shown greater resistance to grease and oil penetration than conventional grease-resisting papers of much heavier weight. It offers improved packaging at lower cost.

← NO GREASE "crawl"

This test will prove it. Place 5 drops of oil on a sheet of Patapar 27-21T. The drops will not increase in size. They do not spread or "crawl." On a conventional grease-resisting paper the oil drops will crawl and spread noticeably. Patapar 27-21T stops grease "crawl" *completely.*

Many important uses

As a wrapper for lard, shortening or margarine Patapar 27-21T gives excellent protection. It stays clean – looks appetizing. And it is economical. Because it resists grease staining, Patapar 27-21T is used also as a package insert for coffee, nuts and other oil bearing products. It is ideal as a protective wrapper for oiled metal parts and leather goods. These are just a few of its many applications.

Patapar
HI-WET STRENGTH
GREASE-RESISTING PARCHMENT
Paterson Parchment Paper Company
Bristol, Pennsylvania
West Coast Plant: 340 Bryant St., San Francisco 7
Sales Offices: New York, Chicago
Headquarters for Vegetable Parchment since 1885

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For samples of Patapar 27-21T and more information, write us today. Tell us the use you may have in mind.

THIS IS ECO-PAC



Imagine an extremely low cost rigid container . . . with outstanding protective qualities and wide utility . . . that automatically is formed from pre-cut blanks, filled and sealed . . . at up to 120 per minute! That's ECO-PAC!

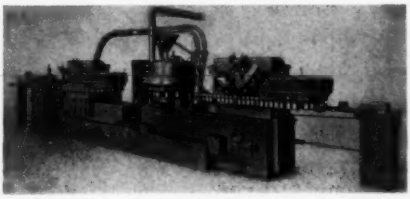
The entire creation and filling of ECO-PACS is accomplished by efficient high-speed machinery, designed and built by Jagenberg-Werke A.G., Dusseldorf (West Zone), Germany. Sixty filled and sealed ECO-PACS per minute are produced on the ECO-MAT. And the ECO-MAT DUPLEX produces 120 per minute.

Blanks for ECO-PACS can be made from a wide variety of materials ranging from light grade board to low MVTR laminations of paper and foil. Without modification, regular folding box equipment can make them inexpensively.

Eco Paks have proven ideal for frozen foods powdered eggs powdered milk dry cereals grain products baby foods detergents soap powders

FILM ON ECO-PAK BOOTH 1264

Further details about ECO-PAKS and the machines which handle them will be furnished by the exclusive U. S. distributor, Alfred Hofmann & Co. *Showroom and Offices: 635 59th Street, West New York, N. J.*



The ECO-MAT DUPLEX, a complete packaging plant.

ALFRED HOFMANN & CO.

Sole U.S. Sales and Service Agents for Jagenberg Labelling and Packaging Machines

covers of plain and printed polyethylene, Pliofilm, cellophane and other materials. *Personnel:* M. L. Abramson, H. L. Abramson, S. L. Abramson, H. Velkoff, J. Dinan. *Hotel:* Ritz-Carlton.

CHAFFEE, RALPH, & CO. *Booth 105.* Chaffee Rotor-Sealer; the making of military box liners, closing bags with heat sealed labels and other bag closing methods by heat; the making of drawstring bags. *Personnel:* R. W. Chaffee, P. D. Denton, H. V. Lucas. *Hotel:* Mayflower.

CHAMPLAIN CO., INC. *Booths 632, 636.* A variety of packaging materials and containers printed by aniline, rotogravure and rotary letterpress on rotary press equipment; also examples of packaging items printed and fabricated in one operation on company's in-line printing and fabricating equipment. New superheat ink dryer, suited to the high-speed drying on roll fed printing equipment of aniline, water base and vapo-set letterpress inks. *Personnel:* W. Goat, W. R. Goat, A. F. Goat, L. J. Remington, G. N. Auerbacher, J. Emmett Cade, J. Martin, F. G. Auer, J. R. Caulfield, G. J. Schowerer. *Hotel:* Claridge.

CHASE BAG CO. *Booths 760, 762.* The entire line of Chase containers and packaging materials. *Personnel:* E. R. Bolman, F. H. Ludington, Jr., R. H. Newbill, P. E. Wright. *Hotel:* Shelburne.

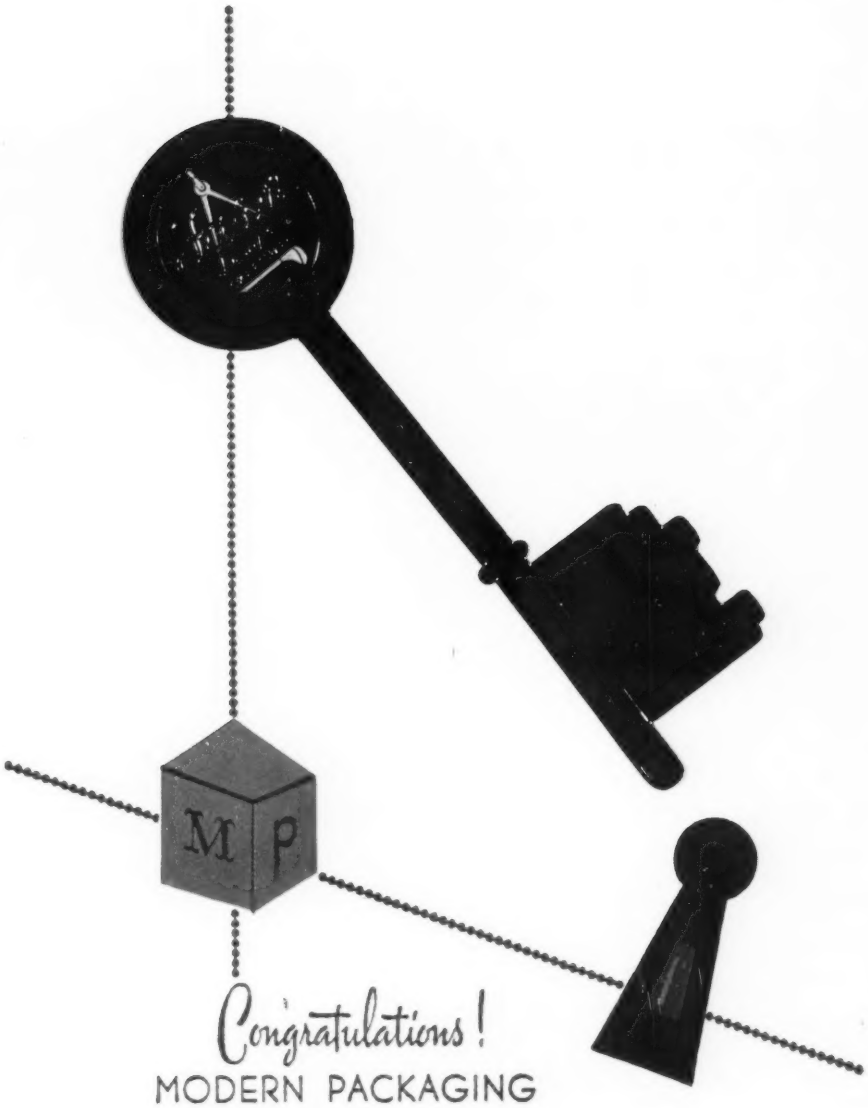
CHASE EQUIPMENT CORP. *Booths 744, 746.* High speed sterile stoppering machine, fully automatic ampoule filling and sealing machine, improved auger filling machine for power for sterile operation, Roto-Cube mixer incorporating new principles in mixing. *Personnel:* I. W. Munzer, M. K. Balter, G. Parodi, J. Henderson. *Hotel:* Traymore.

CHASPEC MFG. CO. *Booth 461.* Methods of producing a variety of folding and set-up boxes, gift and re-use containers, point-of-sale displays. *Personnel:* C. Peckar and others.

CHESTER PACKAGING PROD. CORP. *Booth 850.* Display of Cheslon, a new extruded vinyl film; also Cheslene, polyethylene film in flat and gusseted tubing and sheeting. *Personnel:* W. Channing, A. Schechter. *Hotel:* Ambassador.

CHIPPEWA PAPER PROD. CO., INC. *Booths 740, 742.* Display of Chippaflex, cushioned corrugated wrap; printed flexible corrugated wrapping and matching or contrasting printed gummed tape. *Personnel:* J. S. Druth, J. E. Timer, D. S. Polock, M. H. Paul, L. E. Jansen, C. A. Schirk, D. D. Bardwell. *Hotel:* Claridge.

CHISHOLM-RYDER CO. *Booth 133.* Demonstration of feeding, cleaning and labeling glass jars. Cleaner blows out



Congratulations!

MODERN PACKAGING

Your 25th Anniversary marks a milestone of which you may well be proud.

Like you, we have also devoted our efforts to the development of finer packaging. In our 36 years, distinctive creative designing plus superb craftsmanship have gained for us an enviable position as leader in our field.

THE FOXON COMPANY • 235 West Park Street, Providence 1, Rhode Island

seals • labels • tags • box wraps • display specialties

loose dirt, exhausts contaminated air; uphill type labeler eliminates need of auxiliary elevators. *Personnel:* E. J. Abendschein, C. M. Hesson, K. B. Severson, H. G. Manley, W. H. Reimer. *Hotel:* Dennis.

CLARK-AIKEN CO. *Booths 1156, 1164, 1170.* Type D rotary sheeter and layboy with overlap delivery for use on all types of paper, foils, plastics; also small roll slitting machine for rolls with hole of small diameter. *Personnel:* J. C. Hart, A. J. Scarafoni, J. J. Waddock, J. Marby. *Hotel:* Marlborough-Blenheim.

CLARK EQUIPMENT CO. *Booth 811.* Operating exhibit of the use of fork lift trucks handling unit loads of packaged material. Various hydraulic and mechanical attachments which will handle loads without use of pallets. Demonstration at the railroad siding on Georgia St., featuring unloading and loading of box cars and highway trucks. *Personnel:* J. R. Titlow, R. Oakes, H. R. Hansen. *Hotel:* Haddon Hall.

CLEVELAND CONTAINER CO. *Booth 540.* Various methods of packaging, showing a complete line of spiral-wound paper containers with paper cap and metal ends; metal and telescope and screw cap containers; mailing tubes; paper tubes and heavy wall cores; craft coil forms; Clevelite and Cosmalite phenolic tubing; No-Lap abrasive sleeves, belts, cartridge rolls and expanding drums. *Personnel:* W. F. Walker, J. S. Ritter, R. N. Campbell, H. C. Simms. *Hotel:* Ritz-Carlton.

COLTON, ARTHUR, CO. *Booth 801.* New "Kasle" tube holder; new No. 160 machine for filling, closing and crimping tubes; new No. 30 tablet duster. *Personnel:* K. B. Hollidge, W. A. Doepe, L. Gajda, N. Carmen, C. Edgar, W. Kazmierczak, C. Packard, W. I. Smith, T. J. Casey, B. A. Winner, W. F. Schafer, G. W. Covey. *Hotel:* Claridge.

COLUMBIA PAPER PROD., INC. *Booth 1119.* Various types of specialty bags, waxed glassine, glassine, cellophane, cellophane window bags, cellophane printed rolls, etc. *Personnel:* H. E. Hallman, W. A. Geiger, Sr., R. E. Hallman, W. A. Geiger, Jr., J. Gross, H. Stolte, F. Gross. *Hotel:* Traymore.

CONSOLIDATED PACKAGING MACHINERY CORP. *Booth 226.* Display background showing enlarged photographs of standard types of machines and typical products being handled upon same. *Personnel:* J. E. Baum, W. F. Kruse, R. L. Rogers, Jr., L. F. Maurer, D. Lyttleton, R. Heller, E. G. Kuhn. *Hotel:* Shelburne.

CONTAINER CORP. OF AMERICA. *Booths 450, 551.* Display of corrugated



NIEMAND BROS.
ROUND and OVAL
CONTAINERS

low cost metal or all-paper closures

Niemand Bros. containers can really help promote the sale of all sorts of merchandise. They adequately protect your products at all times. And efficient, low cost dispenser closures may be made entirely of paper when required.

Your needs—from designs through production to delivery—can be handled promptly. Immediate attention will be given your inquiry.

NIEMAND BROS. INC.
Manufacturers of PAPER TUBE PRODUCTS

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Carton Blanks... economically at high speeds for long-run production



Custom-built, this Champlain Rotary Carton Press will repay its cost to the average heavy producer of cartons in a very short time. The Rotary Cutter and Creaser is available with the Champlain Rotogravure, Rotary Letterpress and Aniline-Anilox units. Finished carton blanks are produced from roll stock in any number of colors, in glossy inks or varnished, scored, cut and stripped at speeds as high as 500 feet per minute. Ask Champlain for the answer to high-speed, low-cost carton production.

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Champlain manufactures a complete line of rotogravure, aniline, rotary letterpress and allied equipment for packaging and specialty printing.

SAVE...with this New Container of MOLDED PAPER by Keiding



Amazingly strong...

Light...

Low in Cost!

You, too, may have many uses for this tough new Keiding Molded Paper Container!

It has a tight-fitting cover, is ideally suited for granulated substances, powders, soaps, abrasives, small parts — even some liquids and semi-liquids.

Strong enough for shipping, attractive enough for a sales package, it is a sturdy container that will help solve your problems during the current material shortages.

WRITE for prices and samples. Standard color white.

KEIDING PAPER PRODUCTS COMPANY

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LARGEST MANUFACTURERS OF MOLDED PAPER CONTAINERS

LABEL SEAL-IT

Simplifies Bag Sealing and Labeling!



SEALS & LABELS IN ONE EASY OPERATION!

No staples, no pins, no hand work!

Simultaneously attaches labels and heat seals all suitable bag materials up to 6" wide; also seals to 10" wide. Cuts handling time; saves labor; **pays for itself in 6 months!** Insures tight pack even with oversize bags by folding tops first, if desired. Fast, safe operation with automatic Phantom Feed. Other Heat Seal-It Machines available. Write for circulars.

AGENTS: We are expanding our sales organization. See us at Booth 525, Atlantic City Packaging Convention regarding open territories or write direct to company.

GLOBE HEAT-SEAL, INC.

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HEAT SEAL-IT Machines

and solid fibre shipping containers, folding cartons, fibre cans with sample containers for retail units as well as protective packing for shipping single or multiple units of various commodities.

CONTAINER EQUIPMENT CORP. *Booths 137, 139, 141.* Demonstration of a Ceco Model 40 GT adjustable cartoning machine for the semi-automatic cartoning of products in a carton. *Personnel:* Mr. & Mrs. F. W. Kucklinsky, F. Lieberich, Jr. *Hotel:* Claridge.

CONTINENTAL CAN CO., INC. *Booths 360, 366.* Diversified line of metal cans, containers, crowns, paper containers, fibre drums and plastics will be displayed.

COUNSEL MACHINE CO., INC. *Booths 1045, 1144.* Display of two Robo-Lift elevating conveyors, one at each end of the capacity range. There will be one model which delivers 3 cu. ft. per min. and one of the new large volume conveyors which will handle up to 35 cu. ft. per min., in actual operation. *Personnel:* C. A. Frank, T. M. Bartlo, W. Bartlo, J. S. Bartlo, J. C. Amato. *Hotel:* Ritz-Carlton.

CRESCENT INK & COLOR CO. *Booth 955.* Display of printed and protective packaging items including foil, glassine, cellophane and specialty materials. Actual operation of aniline and rotogravure printing presses to demonstrate inks and coatings. *Personnel:* E. Smith, G. Stevens, C. Conlan, W. Conlan, L. Hecker, J. Carney, L. Watkins, B. Thompson, G. Corbin. *Hotel:* Claridge.

CRYSTAL TUBE CORP. *Booth 232.* Displays of transparent packages. *Personnel:* H. Goloring, R. H. Goodman, H. Bornstein, W. Bederson, H. Wainer, E. Rush, R. Malarney. *Hotel:* Ritz-Carlton.

CULLIGAN ZEOLITE CO. *Booth 1232.* Display will present desiccants for dehydrated military packaging, also for food and pharmaceutical packaging, to guard against moisture damage. *Personnel:* D. Gleason, J. Roche. *Hotel:* Claridge.

DEPENDABLE COMPRESSOR & MACHINE CO. *Booth 1174.* Screen-printing machine for bottles, jars, etc. *Personnel:* C. F. Eisen.

DERBY SEALERS, INC. *Booth 759.* Derby line of gummed tape sealers and label moisteners, 33 different Grip-A-Tab dispensers for pressure sensitive tape. *Personnel:* A. P. Krueger, W. S. Shee, M. B. Fabian, J. C. Bergmark, S. A. Steinberger. *Hotel:* Ambassador.

DIAPHANE CORP. *Booth 711.* Display of products of cellophane, laminated papers, acetate and polyethylene in bags, sheets and rolls. *Personnel:* J. S. Hallo-

(This listing continued on page 374)

FILL your dry and semi-dry products

automatically and *inexpensively* with a

FILLMASTER VIBRATORY FILLER



STUYVESANT ENGINEERING COMPANY

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PERFECT PACKAGING PROTECTION

FIBRO PAD

2 in 1 PROTECTIVE CUSHIONING

for military or commercial packaging

• *Fully Flexible Cushioning and Support* • *Fits any Shape and Size* • *Tough—Durable—Resilient* • *Clean and Easy to Use* • *Eliminates Double Wrapping* • *Saves Time—Cost—Material.*

UNLIMITED VARIETY OF SIZES FOR EVERY PACKAGING PURPOSE

Standard thicknesses 1/8", 1/4", and 1/2"—special thicknesses built up to 4". Available in widths from 4" to 42" (except Grade A—up to 22" wide only). Standard 100-ft. coils—or cut to your required lengths.

***AVAILABLE** through your local Industrial Paper Merchant—or write us direct.*

FIBRO PAD gives your product new "2-in-1" protection: cushions against shock and pressure—shields against water, grease, scratching or rubbing while eliminating costly double wrapping. Strong, lightweight, inner construction has multi-layers of chemically neutral "krinkled" chip—fully approved under Government Specification JAN-P-100—your choice of 4 outer wrap materials.

1. JAN-B-121—Grade A, Greaseproof, Non-corrosive.
2. JAN-P-125—Waterproof, Asphalt-Laminated.
3. MIL-B-130A—Chemically Pure, Non-Corrosive Creped Kraft.
4. COMMERCIAL USE—Heavy Duty Dry Wax Kraft.

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can simplify your military packaging problems

Vanant field specialists are thoroughly qualified to interpret the latest JAN, AN, MIL and Federal Specifications as they relate to your specific packaging problem.

These men can coordinate and supply all your packaging requirements — including those for case liners — to assure full compliance with all government regulations.



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Milwaukee 12, Wisconsin

Protective Packaging Co.
542 S. Dearborn St.
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An easy-to-read guide to the most generally used government specifications on the preservation and packaging of defense materials. Each copy is registered and automatically kept current by Vanant Field Engineers.

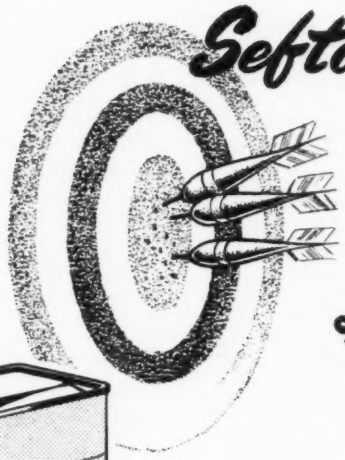
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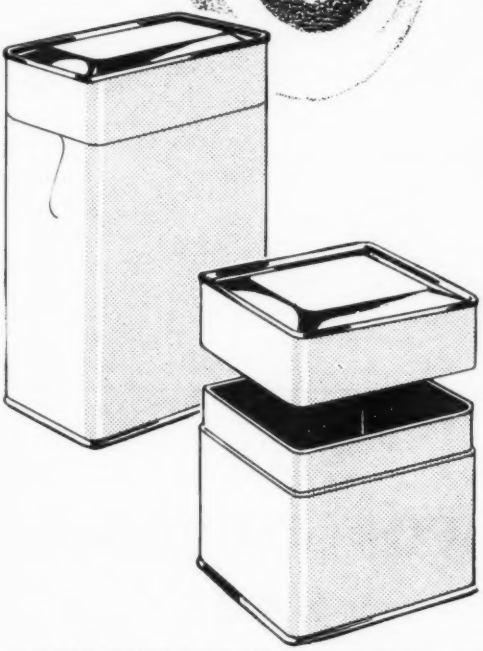
ENGINEERED PACKAGING

Converters of Military Specification

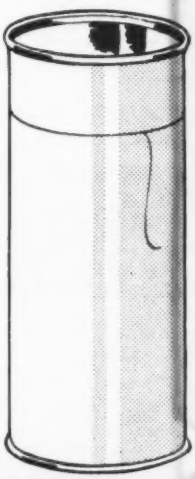
BAGS BARRIERS CASE LINERS Polyethylene and Other Transparent Films

Sefton's string-opening can scores again...and again!





Sefton's on the ball...with its winning string-opening can! This amazing package has been used effectively to protect and glorify a variety of products from preserves to piston rings! Put *your* product in Sefton's string-opening can...it's factory sealed, tamper-proof and easy to open.



PAPER CANS...
SPIRAL AND CONVOLUTE
PAPER AND METAL ENDS
ROUND AND IRREGULAR SHAPES
TUBES AND HEAVY CORES

MONOSODIUM GLUTAMATE CHEESE CANDY ICE CREAM TEA
FROZEN FOODS MOTH CRYSTALS SPICES FRUIT
DETERGENTS PISTON RINGS TIRE PATCHES TOYS
AUTOMOTIVE REPAIR PARTS CLEANSER COFFEE
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DIVISION OF CONTAINER CORP. OF AMERICA

DISTRICT OFFICES: Atlanta • Boston • Chicago • Denver • Detroit • Los Angeles • Memphis • Nashville • New Orleans
New York • Piqua • Portland • Salt Lake City • St. Paul

(*This listing continued from page* 371)
way, H. Membrino, J. C. Riccio, L. Roberts, E. W. Traster. *Hotel:* Traymore.

DILTS MACHINE WORKS, *Booth 820.* Exhibit of pilot-size Contracoater. Motion picture showing of both paper and plastic winders, as well as photographs of other converting equipment. *Personnel:* W. D. Haskell, L. E. DeWeese, H. S. Meadowcroft, R. J. Jacobs, J. W. Couture, E. G. Paxton, Jr. *Hotel:* Ambassador.

DOBECKMUN CO. *Booth 625.* Emphasis of the exhibit will be on the company's facilities and skills in converting, laminating, slitting and printing films, foils and papers. Samples of packaging products for civilian as well as military use. *Personnel:* T. F. Dolan, E. P. Whitley, R. S. Betts, K. E. Prindle, R. S. Jones, H. E. Allen, R. A. Hickman, M. E. Shank, R. M. Seigle, M. Dadande, C. W. Finley, W. B. Tibbets, G. Lacy, R. L. Hoelzer, also sales personnel from the field. *Hotel:* Shelburne.

DOUGHBOY INDUSTRIES, INC. *Booth 654.* New rotary heat sealing and coding machine; automatic bag sealing and labeling machine; continuous band sealer; new "Midget" rotary sealer and miniature band sealer. *Personnel:* E. R. Livingston, J. G. Grevich, H. Weatherhead. *Hotel:* Ambassador.

DOW CHEMICAL CO. *Booth 531.* Simplex automatic bag-making machine operating to demonstrate speed and efficiency in the manufacture of saran film bags via the electronic heat-sealing method; latest food packaging uses of saran film; Styron (Dow polystyrene) rigid containers; Ethocel sheeting in drawn and fabricated rigid containers; Styrofoam for packaging and display purposes. *Personnel:* D. R. Ebey, R. J. Minbiole, L. E. Fake, J. W. Collinson, F. C. Dulmage, R. L. Butler, F. J. Gibbs, R. B. Clarke, C. V. Eicholtz, J. C. Tobin, S. C. Smith, A. A. Butterworth, E. R. Nepkie. *Hotel:* Claridge.

DUMATIC INDUSTRIES, *Booth 728.* Display of the Dumatic No-Glu (heat seal) labelers in models NW wrap around and NS spot type labelers. Demonstrations will include the labeling of small vials. *Personnel:* M. Seifer, E. Georg. *Hotel:* Ritz-Carlton.

DU PONT, E. I., DE NEMOURS & CO., INC. (Dyestuffs Div.), *Booth 221.* Exhibition of the use of color on container board and how new methods of merchandising can be opened up through the use of color. *Personnel:* C. B. Harris, H. A. Lips, J. Gessner, R. F. Lynch.

DU PONT, E. I., DE NEMOURS & CO., INC. (Film Dept.), *Booths 425, 433.* Theme, "effective packaging to meet today's merchandising trends," presented through the use of cellophane, other Du Pont films and Cel-O-Seal bands. Applications of child appeal, convenience, small family, fractional, variety, informative, self-selling and other packaging elements featured in a series of displays. The company's service to users and its relation to effective packaging dramatized. *Personnel:* B. C. Robbins, L. B. Steele, H. C. Broems, R. R. Smith, J. E. Dean, W. J. Harte, T. W. Holland, M. B. Putney, W. G. Hunter, E. C. Lake, E. A. Wight, R. M. MacDonald, D. D. Lanning, N. Allen, R. C. Krueger, W. M. Farrelly. *Hotel:* Shelburne.

DU PONT, E. I., DE NEMOURS & CO., INC. (Polychemicals Div.), *Booths 126, 130, 132, 136.* Exhibit based on the many packaging applications of Alathon polyethylene resins. Demonstrations of its many uses. *Personnel:* E. B. Keller, V. H. Garlington, Dr. R. A. Osten, G. W. Read, J. H. Collie, R. H. Morrison. *Hotel:* Ambassador.

DURETHENE CORP. *Booth 1015.* Polyethylene display. *Personnel:* W. J. Kelleher, R. J. Boucher, G. S. Goodridge, J. Armstrong, G. Wieczorek. *Hotel:* Shelburne.

EASTERN DUO-FAST CORP. *Booth 1114.* Duo-Fast automatic hammers, tack-



SMALL POLYETHYLENE BAGS

Immediate attention to large or small orders.

We produce bags as small as ½" x ½". All gauges. Custom shapes. Write for samples. Quick delivery.

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Crocker DAY-GLO Daylight Fluorescent papers are eye-catching, customer-stopping, sales-building. Their super-brightness just won't let a buyer's eyes go by!

Crocker DAY-GLO papers make every phase of your campaign look good—make your direct mail pieces leap out of their envelopes—make your displays and point-of-sale identification reach out and grab prospects—make your packages stand up and say "take me home!"

From coast-to-coast—there are Crocker DAY-GLO paper merchants ready to serve you—ready to show you samples—ready to help you with promotion or packaging problems.

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21ST NATIONAL PACKAGING EXPOSITION

ATLANTIC CITY · April 1-4 1952

BOOTH 1013



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Call on us to prescribe the best glue at lowest cost for your *next* packaging problem, whatever it is: better machineability, *more or less penetration,* faster speed of set, *higher dry strength* or water-resistance, *better aging properties,* less toxicity!

Remember, just call *Borden's.*

The Borden Co. Chemical Division, 350 Madison Avenue, New York 17, N. Y.

ers, air tackers; Powers line of heavy-duty steel strapping air staplers and hand tackers. *Personnel:* H. Leber, S. Leber, E. Rothman, H. Feinberg.

EASTMAN KODAK CO. *Booth 470.* Various types of transparent containers fabricated from transparent Kodapak Sheet in gauges from 0.001 to 0.060. *Personnel:* L. L. McGrady, A. B. Corey, H. Lloyd, P. U. Braman, C. R. Lee, C. D. Snead, S. D. Osman, M. F. Tucker, R. Caire, J. E. Gruntler, L. R. Mills, E. M. Drummond, J. Watkins, W. J. Seaman. *Hotel:* Marlborough-Blenheim.

ECONOMIC MACHINERY CO. *Booths 705, 706.* First public showing and operating demonstration of two new World labelers. Model 150 Bee-Line for high-speed bottle labeling; World Model B automatic labeler for round glass containers of all kinds, demonstrating on antibiotic vials. *Personnel:* E. A. Oliver, G. L. N. Meyer, Jr., H. R. Stewart, S. T. Carter, A. V. Thalin, A. O. Drykholm, D. M. Sisson, J. H. Maloney, L. L. Keeler, W. C. Caveny.

ELGIN MFG. CO. *Booth 558.* Feature of the exhibit will be the Speed-King, first shown at the recent National Canners' Convention; also Twin filler and automatic feed, semi-automatic capper. *Personnel:* W. B. Sanford, H. G. Manley, W. H. Reimer, H. Fehrs, D. M. Webster, G. R. Stevens, A. R. Stevens, W. E. Jensen. *Hotel:* Dennis.

ENVELOPE MFGRS. ASSN. OF AMERICA, *Booth 201.* Display showing broad variety of merchandise and commodities packaged in paper envelopes. *Personnel:* R. R. Bliss, W. H. McManus. *Hotel:* Chalfonte-Haddon Hall.

EXACT WEIGHT SCALE CO. *Booth 750.* Display of high-speed electronic checkweighing equipment with automatic statistical control of filling process, semi-automatic weigh-feeder equipment with electronic controls, Exact Weight packaging and production scales, Shadograph packaging and production scales. *Personnel:* W. A. Scheurer, W. J. Schieser, R. M. White, R. M. Rapp, W. T. Monroe, A. C. McIntyre, R. H. Meier, E. A. LeVay. *Hotel:* Ambassador.

FACILE CORP. *Booths 1076, 78.* Facile products in use. *Personnel:* J. Gruber, E. Jacobson, D. S. Zacune, J. Coleman, D. Halpern, M. A. Fischer, C. Kandell, M. Gorman, I. M. Dubin, R. Freydberg, F. Eastburn, M. Weill, B. Schneider, C. Zuckman. *Hotel:* Claridge.

FELINS TYING MACHINE CO. *Booth 145.* Demonstration of Pak Tyer tying machines. *Personnel:* H. Kohler, P. Gross, W.



Paper with its sleeves Rolled up

Once a nibbling tidbit now an important staple food, 330,000,000 pounds of potato chips are made yearly. To counteract moisture . . . the chip's eternal enemy, Rhinelander makes some of the finest, tightest papers known to the potato chip industry.



There's a Simpler Way Today to make this delicious ice cream. Open a package, stir a little . . . then relax while your refrigerator does the work. Another miracle of modern food processing and Rhinelander protective papers.



An Odd Job for us is packaging welding rods. These may cost many dollars per pound and they are perishable. Our protective paper that does this job must be good; indeed it is. Maybe *you* have a parallel problem.

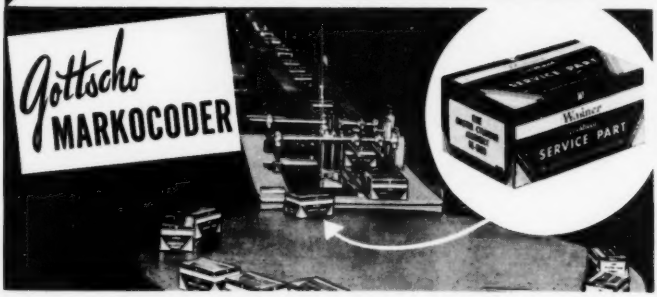
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. . . the functional papers that do so many tough jobs well.



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for automatic production-line package imprinting

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BETTER QUALITY
SUPERIOR SEAL
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McCambridge, H. Keller. *Hotel:* Ambassador.

FERGUSON, J. L., CO. *Booths 211, 215* "Packomatic" case sealing and case imprinting equipment. *Personnel:* C. C. Claus, H. G. Eikamp, J. W. Bradford. *Hotel:* Claridge.

FISCHBEIN, DAVE, CO. *Booth 757.* Model C portable bag closer and Model CH portable sewing machine. *Personnel:* H. Fischbein, G. Fischbein. *Hotel:* Ritz-Carlton.

GAYLORD CONTAINER CORP. *Booth 373.* Demonstration of closing Gaylord's patented Drumpak container. *Personnel:* B. Williams, A. Erdhaus, J. M. Arndt, Jr., G. G. Hertslet, P. Claus, P. Beaman. *Hotel:* Claridge.

GIBRALTAR CORRUGATED PAPER CO., INC. *Booth 1014.* New approaches to packaging and merchandising problems in the corrugated field. Showing of merchandising displays. *Personnel:* A. J. Katz, F. Cappi, K. G. Foeppel, L. A. Lake, Jr., J. Meade, H. J. Luchan, E. Lippman, R. G. Schaefer, W. Sheldon, I. Sikoff, J. T. Swan, S. A. Ternyei, W. V. Wilson. *Hotel:* Ambassador.

GLOBE HEAT-SEAL, INC. *Booth 525.* Display of high production heat sealing equipment; automatic labeling heat sealing equipment; complete range of Heat Seal-It machines. *Personnel:* H. L. Reitzes, A. T. Alden. *Hotel:* Ambassador.

GORDON CARTONS, INC. *Booth 1017.* Folding paper cartons, cartons for baking industry featuring a new coating known as Neutrotex. Special cartons with cut-outs to be saved. *Personnel:* L. K. Frank, B. Schnall, C. B. Debuskey. *Hotel:* Shelburne.

GOTTSCHO, ADOLPH, INC. *Booths 657, 659.* Newest model machines for automatic production-line package imprinting and code-dating, including the Markoprinter, Markocoder, Cartoncoda, Rolacoder. *Personnel:* M. Hirschey, A. Alessi, W. Haberland, J. Filmonchik, G. Kramer, I. Gottscho, B. Grogan. *Hotel:* Ambassador.

GREENWOOD PACKAGING SUPPLY CO. *Booths: 1120, 1124.* Complete military packaging supplies for every method of packaging and preservation. Featuring interior and exterior metal shipping packs, shredded foam rubber cushioning, moisture-vapor bags, humidity indicator cards, waterproof case liners, moisture-impervious envelope bags. Contract Government packaging division. *Personnel:* H. B. Katz, L. A. Pallante. *Hotel:* Ambassador.

GUMP, B. F., CO., *Booths 812, 814.* Demonstration of Bar-Nun Auto-Check



If it's a paper tube

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Diameters from ¼"—and less —to 18" and larger . . .

- **CONTAINERS Metal and paper closures**
- **SPECIALTIES Condenser tubes; Socket liners; Reels; Spools . . . and many more**

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Middlesex automatic machine production has shaved costs on ⅜" x 2½" pressed end closures to a fraction of a cent. Lowest in cost, colorful and attractive, useful in a wide variety of applications. Why not investigate them now?



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water dispersion and solvent formulations for laminating

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pliofilm	glassine
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Special adhesives developed to meet your laminating needs

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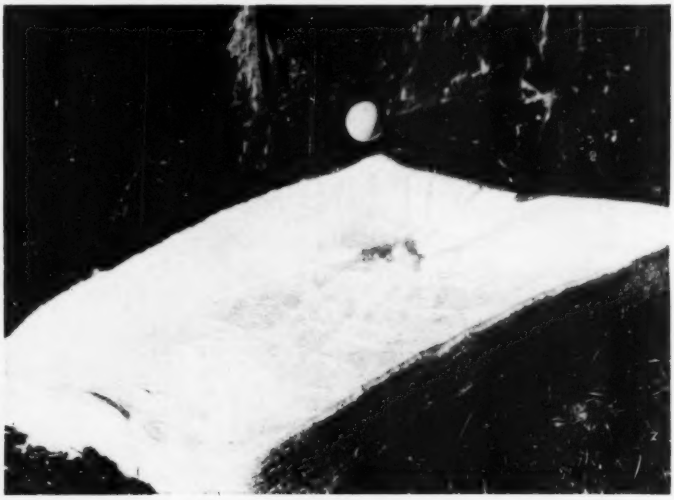
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Ever See a Raw Egg Drop 25 Feet and *BOUNCE*?





(left) THERE GOES THE RAW EGG—from a roof-top 25 feet above the ground. (above) EGG BOUNCES! Photo taken split second after raw egg landed on 2-inch thickness of CELLULINER.

New cushioning material provides 4 times the packaging protection of Creped Wadding

When the Army, Navy and Air Force went hunting for a better protective packaging material last Spring, they found it in CELLULINER, a new product developed after many years of research by The Gilman Brothers Company of Gilman, Connecticut.

Test after test showed that CELLULINER had a compressive resilience of 71.4%. Creped wadding, the material commonly used for interior packaging, tests at only 17.8%. Special Gilman processes can also make CELLULINER mildew-proof and flame-proof. Today, millions of feet of CELLULINER are being used by the Armed Forces.

CELLULINER comes in two basic types: the *absorbent* type takes up over 16 times its weight in water; the *non-absorbent* type takes up under 2.4 times its weight and actually floats indefinitely. Both are soft, clean, flexible, chemically neutral (average H-ion concentration 6.8).

Finally, CELLULINER *insulates*—it's the most efficient barrier to heat and cold ever offered in a commercial interior packaging material.

• **Costs are in line.** Despite its 300% greater protective capacity, which cuts packing and shipping costs and losses from breakage or damage in transit, CELLULINER costs about the same per square foot as creped wadding. Users get 4 times the protection per packaging dollar or need to use far less material.



(right) President Lawrence M. Gilman of The Gilman Brothers Co. holds 1-inch thickness of flame-proofed CELLULINER against acetylene flame hot enough to melt steel. Only outer layer chars — his bare hand is safe against 2000° flame!

CELLULINER
REG. U.S. PAT. OFF.

the amazing new cushioning material

SAVES YOU MONEY

... on every package!

... on every shipment!

Whatever your packaging problem—flotation, blocking and bracing, or surface protection, CELLULINER's 300% greater compressive resilience saves you money. You get 4 times the protection of creped wadding! You cut breakage and damage losses, or, since CELLULINER's cost is about the same as creped wadding, you save by safely using far less! And CELLULINER's resilience lasts! CELLULINER stands up under heavy loads and repeated shocks—never develops "permanent set." That's why Army, Navy and Air Force are using millions of feet—why scores of major U.S. firms specify CELLULINER for all their plants!

CELLULINER FACTS

Comes in rolls or sheets 4" to 80" wide, .125" to 2.0" thick—or can be die-cut to any special shape at factory. Faced and backed with tissue, creped Kraft, rust-resistant or anti-tarnish paper, corrugated board, muslin or plastic to meet specific needs in either absorbent or non-absorbent types. Meets or exceeds Fed.Spec.UU-C-843. Can be flame-proofed to withstand acetylene torch temperatures above 2000° F. and/or mildew-proofed to meet or exceed Mil. Spec. MIL-F-5030. Chemically neutral, won't tarnish, corrode or chemically alter any material or product. Light, clean, soft, flexible, strong.

WHAT CELLULINER IS

A precisely manufactured cushioning material, made by special Gilman processes, from cotton, nature's own tubular form of cellulose. CELLULINER'S very high compressive resilience comes in part from this tubular structure—for the hollow tube is the lightest, strongest, most resilient structural form. Cotton's high insulating capacity helps to make CELLULINER the most efficient barrier to heat and cold commercially available in an interior packaging material. Made only by

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Please give me more information about CELLULINER.

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net weigher with bag feeder for feeding opening, exact weight filling and ejecting paper bags. Also carton or can conveyor and timer synchronized with Edtabuer-Duplex net weigher for automatic weigh feeding of dry powdered or granular materials into rigid containers; Vibrox can, carton and barrel packers.

GUTMANN, FERDINAND, & CO. *Booth 1056.* Latest developments and full variety of Filmaseal and other specialty bottle closures. *Personnel:* R. E. Lewis, S. H. Lask, F. Nossal, J. B. Eisen, L. D. Rothschild, H. B. Sitarsky. *Hotel:* Traymore.

HAMPTON MFG. CO. *Booth 1101.* Complete line of pressure-sensitive industrial cloth tapes; operation of test equipment to determine adhesion, tearing resistance and tensile strength of industrial tapes. *Personnel:* R. N. Balkind, A. W. Anderson. *Hotel:* Dennis.

HAZEL-ATLAS GLASS CO. *Booth 473.* Exhibition of authentic examples of Egyptian glass dating from the Third Century B. C.; glass of the Syro-Roman period made in about the Third Century A. D.; four examples of highly ornate Venetian glass manufacture; three pieces of English glass and three of Early American glass. *Personnel:* F. Smith, W. H. Baird, J. Hendrickson, J. H. Majesky, J. C. Neuhart, J. J. Noll, J. Blatchley, A. L. Arighi. *Hotel:* Claridge.

HIGH PRODUCTION MACHINE CO., INC. *Booth 206.* Showing of semi-automatic set-up box making machine known as Alpha-Autofeed; also the Vu-Matic, a completely automatic unit for making acetate boxes from roll stock. *Personnel:* D. T. Neale, H. K. Reifsnyder, W. Bailey, B. Hiller. *Hotel:* Ritz-Carlton.

HINDE & DAUCH PAPER CO. *Booth 467.* Group of engineered corrugated shipping boxes and materials handling units for light fragile items to dense heavy products; a complete line of merchandising packages in a wide range of colors. *Personnel:* J. B. Wyatt, C. M. Schott, C. U. Harvey, P. Meelfeld, P. Roberts, K. R. Demorest, L. Frank. *Hotel:* Claridge.

HOFMANN, ALFRED, & CO. *Booths 1171, 1264, 1270, 1274.* Blitz high speed automatic labeler; R.E.A. fully automatic rotary labeler; Benchpresto automatic table labeling machine; Type III semi-automatic labelers for either flat or round objects. Moving picture showing Eco-Pac operation. *Personnel:* C. A. Hepp, E. E. Wachsmuth, H. F. Riis, Dr. M. Jagenberg, H. Malitz, R. Pilz, H. Jensen. *Hotel:* Marlborough-Blenheim.

HOL-BAG, INC. *Booth 806.* Holweg I. V. Stella #50 aniline printer with Holweg Roto-Simplex bag machine featuring per-

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the latest in wrapping and and labeling equipment

Wrapping Machines
Made in 8 different size ranges. Most versatile. Quick adjustability. Efficient roll-type labeling system.

Label Imprinter Cut-Stacker
Imprints predetermined number of labels from a roll. Cuts and stacks them. Ideal for super markets. Also for makers of light metal parts for labeling boxes.

Top-of-Box Labeling Machine
Imprints and heat-seals label from roll to boxes of cookies, candies, cakes, etc.

Roll-Type Heat-Seal Labels
Known for their distinct beauty. Produced in our own modern plant.

Let Mr. S. H. Massingham, sales manager, and other staff members explain this equipment at our Space or The Shelburne.

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Wrapping & Labeling Equipment
OLIVER MACHINERY COMPANY
GRAND RAPIDS 2, MICHIGAN

forating system for high speed production. Actual production runs. *Personnel:* C. Laury, R. J. La Pierre, C. Freysz, A. Entzminger. *Hotel:* President.

HOLES, FLOYD A., CO. *Booths 1052, 1054.* Custom laminated and coated products, barrier materials, and a new flexible corrugated cushioning material. *Personnel:* F. A. Holes, P. W. Dicker, R. R. Augsbuger, J. P. Wollam, T. V. Loran. *Hotel:* Claridge.

HORIX MFG. CO. *Booths 227, 231.* Fully automatic rotary filler filling liquids into plastic containers. *Personnel:* Mrs. F. B. Fairbanks, W. H. Bulcao, J. Scanlon, D. Sargent, R. Reno, R. McWilliam. *Hotel:* Brighton.

IDEAL STENCIL MACHINE CO. *Booth 921.* New Ideal high speed automatic stencil-cutting machine; latest developments in Ideal shipping department supplies; demonstration of the Ideal Clip-A-Tape gummed tape machine. *Personnel:* R. F. Alexander, C. G. Beck. *Hotel:* Claridge.

IMPACT-O-GRAPH CORP. *Booth 1077.* Display of 3-Way Impact Recorders for packaging testing (2 styles, one for heavy packages and one for light packages); 3-Way Impact Recorders for use in freight cars; small 3-Way Impact Recorders for testing of cushioning and drop test, where time is not essential. *Personnel:* W. S. Mielziner, J. Hickox, C. T. Rodgers, W. F. Bachelder, J. T. Fuhrman, Jr. *Hotel:* Shelburne.

I. D. CO. *Booth 630.* New I. D. decorative metal gift containers. *Personnel:* A. Katzman, S. L. Kaye, A. B. Katzman, D. Rand. *Hotel:* Shelburne.

INLAND STEEL CONTAINER CO. *Booth 612.* A variety of lithographed and lined containers in a number of styles and sizes. *Personnel:* G. D. Zuck, S. W. Varn, J. F. Nelson, E. T. Statler, A. J. Durst, D. P. Donoher. *Hotel:* Ambassador.

INTERNATIONAL PAPER BOX MACHINE CO. *Booths 911, 913.* Machine illustrations, operational layouts and all types of sample boxes. *Personnel:* E. Labombarde, R. Labombarde, P. Labombarde, L. E. LaBombard, L. W. LaBombard, Roger Dickey, T. Kieley, V. Nelson, W. Todd. *Hotel:* Shelburne.

INTERNATIONAL PRINTING INK. *Booth 324.* Display of over 2,000 packages including examples of "hard-to-print" surfaces such as plastic films, foils and special coated stocks. Also odorless food wraps, steam sterilized boxes, rub-resistant cartons and outstanding examples of metal decorating. Booklets on color and package printing, also latest developments in aniline printing. *Personnel:* W. F. Cornell, W. N. Davies, E. H. Davis, J. V. Donovan, L. H. Fish, E. T. Hampshire, J. T. Hargrave, O. C. Holland, F. J. Jeuck, C. S. Johnson, J. F. McCann, J. L. Osias, L. F. Paradis, W. S. Ruxton, H. R. Saam, D. E. Tuttle, R. Trudgeon, O. T. Unglaub, J. W. Viner, F. A. Weymouth, W. S. Law. *Hotel:* Claridge.

JONES, R. A., & CO., INC. *Booth 375.* Demonstration of fully automatic Constant Motion Cartoner, designed to load bottles, jars, tubes, and miscellaneous articles; also the Jones semi-automatic CMV cartoner. *Personnel:* W. Jones, A. E. Motch, R. T. Foreman, J. A. Dieter, J. R. Willson. *Hotel:* Shelburne.

KALAMAZOO VEGETABLE PARCHMENT CO. *Booth 570.* Display of food protection papers—genuine vegetable parchment and waxed carton sealing papers, both plain and printed. *Personnel:* G. Stewart, M. Wood, A. Weston, D. Brownell, W. E. Swan, W. E. Martin, C. Blackwood, H. Millman, G. Spies, T. Roy, C. W. Wood. *Hotel:* Ambassador.

KIMBERLY-CLARK CORP. *Booth 225.* Actual and pictorial examples of typical packaging jobs in which Kimpak is employed for interior packaging protection. *Personnel:* R. N. DeWilde, R. J. Piltz,

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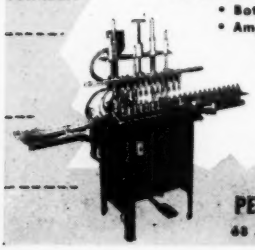
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More and more of the nation's leading drug and cosmetic producers have turned to PERL bottle, tube and jar filling machines for the speed and accuracy their fine products demand. Whatever your filling requirements, PERL can make the machine that will do the job best.

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- Can Filling
- For Gravity, Vacuum or Pressure
- Jar and Tube Filling and Closing
- Bottle Cleaning
- Ampoule Filling

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printing on glass, plastic, metal and wood

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luxurious appearance ●

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We sell a complete line of cloth backed, paper backed and foil backed barrier materials to meet requirements of Army, Navy and Air Force packaging; also, gummed and pressure sensitive tapes, packing list envelopes and protectors.

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MIL-C-6056	JAN-P-101	JAN-B-121
UU-P-271a	JAN-P-115	JAN-B-148
100-14-A	JAN-P-128	JAN-P-108
19-8-13	JAN-P-131	JAN-P-116
MIL-B-131A	JAN-P-140	JAN-P-117
MIL-C-10547	JAN-P-658	JAN-P-125
MIL-E-6060	AN-B-20	JAN-P-127
MIL-B-3149	AN-C-67b	JAN-P-130
JAN-P-100	AN-E-lb	FS-100-NS
	AN-T-12a	

APPROVED CONVERTERS OF SPECIFICATION MATERIALS
Write, Wire or Phone Your Orders

PAPER PRODUCTS
CHARLES E. KING & CO.
SHIPPING MATERIALS

970 WEST CHICAGO AVE., CHICAGO 22, Ill., TELEPHONE HAymarket 1-0165

MANHASSET
Does the Job Right!

★ MEETS ALL REQUIREMENTS
★ GIVES UTMOST PRODUCTION

ANILOX PRESSES 2-3-4 Color

★ HANDLES VARIETY OF STOCK
★ SKILLFULLY DESIGNED
★ CARRIES THE LOAD
★ MANY SATISFIED USERS

Write for... information



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MANHASSET MACHINE COMPANY
MINEOLA, N. Y. • Garden City 7-7560

COMPLETE FACILITIES FOR SPECIAL DEVELOPMENT WORK

LOOK TO
HOWARD
CONTROLLED POLYETHYLENE
PLASTICS
.....for...



Howard Seal controlled polyethylene plastic bags are the finest obtainable. They are moisture-proof, fracture-proof, and unaffected by temperature changes. You can absolutely depend on their uniformly high quality . . . Look to Howard for these outstanding features:

1. Converted from flat **tubing,** Howard Seal bags are seamless and guarantee complete sterility inside for packing processed foods. New production methods absolutely eliminate pinholes.

2. Controlled as to size, strength, thickness, sealability, and chemical inertness — You can depend on the uniformity of each shipment of Howard plastic bags . . . And they will conform to your most rigid specifications.

3. Now Howard has finally solved the problem of perfect printing. New methods keep your printed message **on** the package . . . will not crack, pull or rub off. Unaffected by changes in temperature or moisture.

HOWARD PLASTICS
Main Plant and Office:
Dept M-3, Council Bluffs, Iowa
Plants at:
Tucson, Arizona, and Kansas City, Missouri.
In Canada: Transparent Paper Products Co.,
5565 Cote St. Paul Rd., Montreal, Quebec.

WRITE TODAY FOR FREE SAMPLES AND LOW PRICES

WHICH PACKAGE WOULD *You* PREFER?



A PACKAGE THAT POURS LIKE THIS

. . . spilling and wasting the product, with no protection against moisture and infestation.

OR A PACKAGE WITH A

SEAL-SPOUT*

. . . for easy pouring . . . sanitary storing

Market survey shows *consumers* prefer packages of free-flowing products with spouts —metal spouts—SEAL-SPOUTS.

These leaders, therefore, realize the extra merchandising value and package with SEAL-SPOUTS—right in their production line.



EASY TO OPEN

NABISCO CRACKER MEAL · CALGONITE
PABLUM · STERLING SALT · NOCTIL
ELECTRASOL · SOILAX
NIAGARA LAUNDRY STARCH



EASY TO POUR

Visit Our Exhibit
Booth 212
Packaging Show
April 1-4
Atlantic City, N. J.



EASY TO CLOSE

*T. M. Reg. U. S. Pat. Off.

CORP. ***SEAL SPOUT Corp.*** 1749

363 Jelliff Ave., Newark 8, N. J.

W. A. Hemming, R. S. Pauli, W. E. Cozens, D. L. Merritt, R. J. Miller, R. Garland, F. A. Biederman, S. L. Swenson. *Hotel:* Ambassador.

KIMBLE GLASS (Div. of Owens-Illinois Glass Co.), *Booth 224.* New Kimble Neutraglas Color-Break ampul; also a representative display of Kimble vials, custom blown, and parenteral solution containers. *Personnel:* S. J. McGiveran, E. B. Dennis, Jr., K. G. Hewitt, T. Anderson, E. D. Bowes, B. Puffer, H. C. Carlson, L. P. Ross, J. R. Sims, R. P. Gillham, L. E. Beitler, H. J. Walters, Jr., J. F. Greene, W. F. Smith, D. G. Glesser, H. Hobbs, W. E McWhorter, M. R. Kopf, Jr. *Hotel:* Dennis.

KRAUSE, FREDERICK A., ASSOCIATES, INC., *Booth 1275.* Guilderaft reuse gift containers. *Personnel:* F. A. Krause, W. Hardin. *Hotel:* Ambassador.

LAKSO CO., INC. *Booth 736.* Two Model 34 counters, one for tablets and the other for capsules. Also the tablet inspection unit. *Personnel:* E. E. Lakso, G. Lakso, A. S. Chandler, R. H. Zeidler. *Hotel:* Shelburne.

LASSITER CORP. *Booth 751.* Display of materials for textile packaging including lithographed wraps, band, printed tissues, inserts and cellophane envelopes; also for pre-packaging meats, produce, candy. *Personnel:* J. H. Lassiter, F. H. Lassiter, J. V. Shea, R. W. Plover, R. B. Smith, W. B. Wine. *Hotel:* Ritz-Carlton.

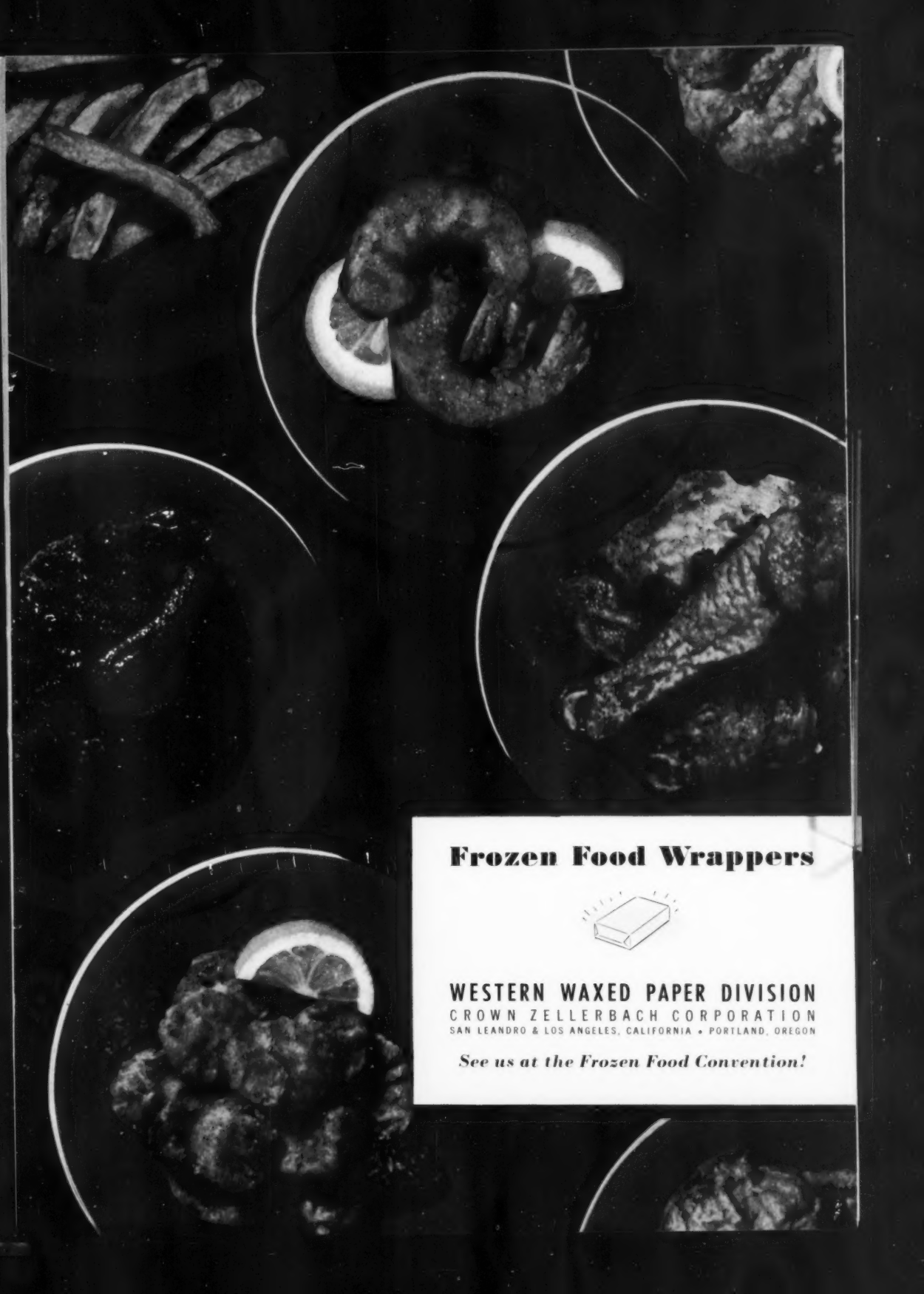
LEEDS SALES CO., INC. *Booths 670, 672.* Display of facilities and services for development and production of specialty packaging materials. Emphasis on custom packaging. Display of industrial and military packaging. *Personnel:* C. M. Leeds, W. L. Hardy, J. T. Heatley, L. C. Duggan, F. P. Roman. *Hotel:* Shelburne.

MANHATTAN PASTE & GLUE CO., INC. *Booth 652.* Illuminated display showing line of products and featuring articles produced using the company's special adhesives. *Personnel:* A. Lawrence, S. Eitelberg, R. Rosen. *Hotel:* Traymore.

MARATHON CORP. *Booth 561.* Mass display of packaging for the food industry, with a section featuring recent packaging developments. *Personnel:* R. C. Flom, D. Koehler, P. R. Rundquist, F. Broeren, L. Croy, D. A. Snyder, P. Anthony. *Hotel:* Ambassador.

MARKEM MACHINE CO. *Booth 170, 172.* Industrial marking machines; pressure-sensitive label printer; cylindrical object printer; box printers; label printers. *Personnel:* H. D. Milton, J. H. Vigneault, S. W. Raymond, J. S. Remmel. *Hotel:* Dennis.

(This listing continued on page 388)



Frozen Food Wrappers

WESTERN WAXED PAPER DIVISION
CROWN ZELLERBACH CORPORATION
SAN LEANDRO & LOS ANGELES, CALIFORNIA • PORTLAND, OREGON

See us at the Frozen Food Convention!

"I urge every American employer to promote the Payroll Savings Plan..."



DECHARD A. HULCY, PRESIDENT
Chamber of Commerce of the United States

"I urge every American employer to promote the Payroll Savings Plan among his employees as a means of building a reservoir of savings."

As President of the Chamber of Commerce of the United States . . . with literally thousands of contacts throughout industry and commerce . . . Mr. Hulcy is uniquely qualified to evaluate the Payroll Savings Plan.

As a business man, Mr. Hulcy puts his finger on a most important accomplishment of the Payroll Savings Plan: the enormous reservoir of savings, *future purchasing power*, built up by systematic saving.

Today, millions of Americans hold Series E Defense Bonds totaling $34.7 Billion. It will surprise many to learn that this figure is $4.8 Billion greater than on V-J Day. And the $34.7 Billion total of outstanding Defense Bonds is mounting as more and more employers recognize the importance of the Payroll Savings Plan. During 1951 there was a sizable increase in the number of men and women saving through Payroll Saving Plans where they work.

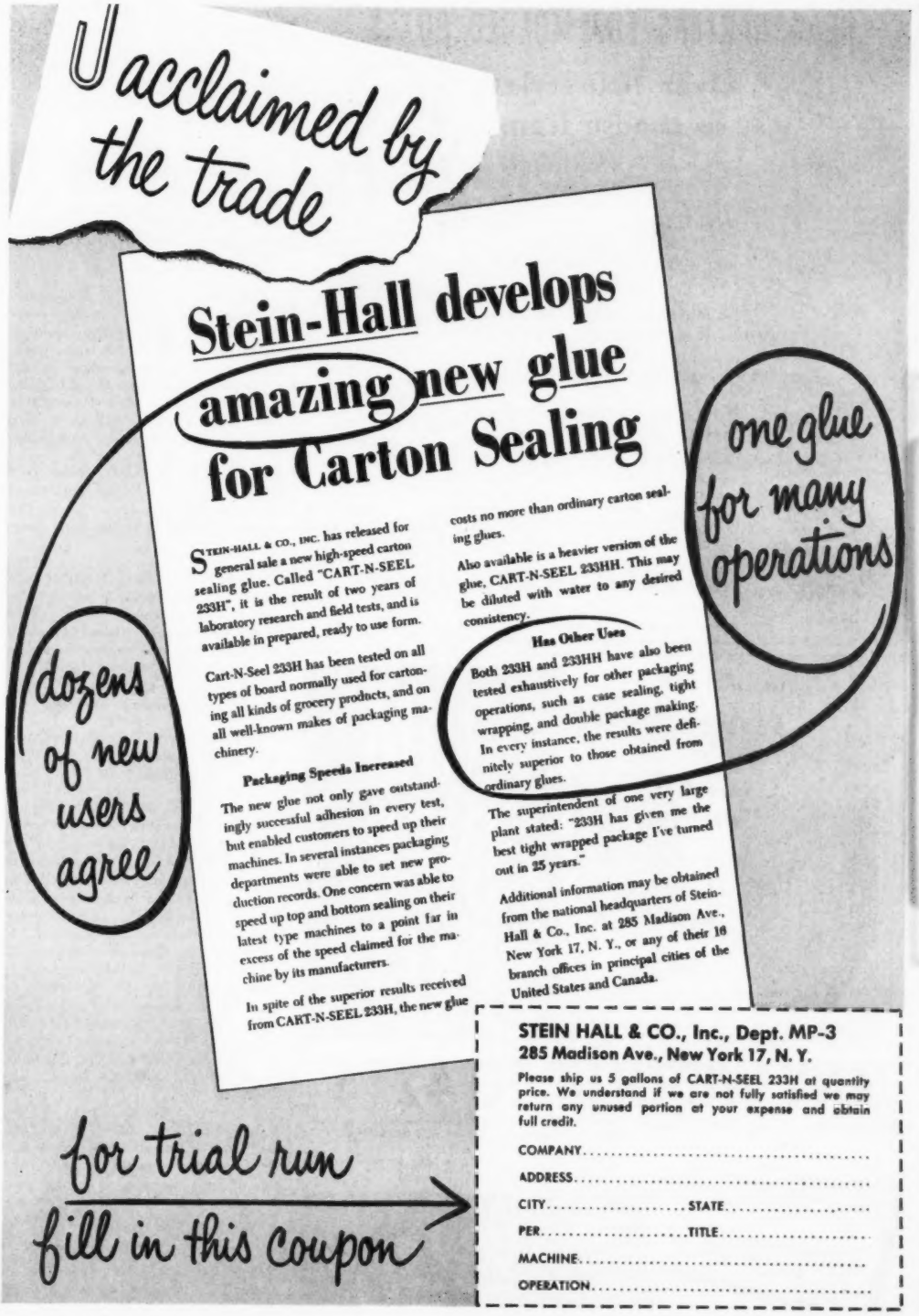
During the calendar year 1951, 45,500,000 $25 Series E Bonds were purchased – a gain of 17% over the previous year. 12,000,000 $50 E Bonds were purchased in the same period, 14% over the previous year. $25 and $50 denominations are the bonds bought by Payroll Savers.

Building a reservoir of savings and future purchasing power . . . contributing to America's defense effort . . . helping to maintain America's economic stability by providing a check on inflationary tendencies, the Payroll Savings Plan is doing a three-way job.

If your company hasn't a Payroll Plan, or if your employee participation is less than 60%, the Savings Bond Division, U. S. Treasury Department will be glad to help you take your place among America's Honor Roll of "Companies on Payroll Savings". Phone, wire or write to Suite 700, Washington Building, Washington, D. C.

The U.S. Government does not pay for this advertising. The Treasury Department thanks, for their patriotic donation, the Advertising Council and

MODERN PACKAGING



STEIN-HALL & CO., INC. has released for general sale a new high-speed carton sealing glue. Called "CART-N-SEEL 233H", it is the result of two years of laboratory research and field tests, and is available in prepared, ready to use form.

Cart-N-Seel 233H has been tested on all types of board normally used for cartoning all kinds of grocery products, and on all well-known makes of packaging machinery.

Packaging Speeds Increased

The new glue not only gave outstandingly successful adhesion in every test, but enabled customers to speed up their machines. In several instances packaging departments were able to set new production records. One concern was able to speed up top and bottom sealing on their latest type machines to a point far in excess of the speed claimed for the machine by its manufacturers.

In spite of the superior results received from CART-N-SEEL 233H, the new glue costs no more than ordinary carton sealing glues.

Also available is a heavier version of the glue, CART-N-SEEL 233HH. This may be diluted with water to any desired consistency.

Has Other Uses

Both 233H and 233HH have also been tested exhaustively for other packaging operations, such as case sealing, tight wrapping, and double package making. In every instance, the results were definitely superior to those obtained from ordinary glues.

The superintendent of one very large plant stated: "233H has given me the best tight wrapped package I've turned out in 25 years."

Additional information may be obtained from the national headquarters of Stein-Hall & Co., Inc. at 285 Madison Ave., New York 17, N. Y., or any of their 16 branch offices in principal cities of the United States and Canada.

STEIN HALL & CO., Inc., Dept. MP-3
285 Madison Ave., New York 17, N. Y.

Please ship us 5 gallons of CART-N-SEEL 233H at quantity price. We understand if we are not fully satisfied we may return any unused portion at your expense and obtain full credit.

COMPANY.....

ADDRESS.....

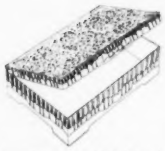
CITY.....STATE.....

PER.....TITLE.....

MACHINE.....

OPERATION.....

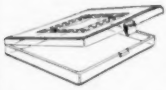
HEADQUARTERS FOR MOLDED BOXES



Lace Box, domed lid, hinged, opaque — 7⅛" x 4⅞" x 1⅛", also ⅝" high



C.I.G. Wallet or utility box, hinged, clear or all opaque—4½" x 3½" x ½"



#25 — 3¼" x 2¼" x ⅜", hinged, various colors



Hinged Heart Box, clear cover, opaque base—6" x 6" x 1½"

Over 100 styles to choose from

Little boxes, big boxes. Transparent boxes, opaque boxes. Hinged boxes, unhinged boxes. Plain boxes, compartment boxes . . . just as long as they're molded of plastic, and you need a thousand or more, we'll fill your needs.

No Mold Cost to Pay. Our affiliation with 20 leading molders puts us in a position to deliver the boxes you want at prices you'll like.

Write for Illustrated Catalog Sheets. Tell us what you want to package, its size, and approximately how many boxes you will need . . . we will send you photos of appropriate boxes from our stock molds. Immediate service. Write today.

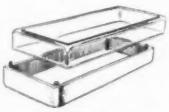
IRA HARMON CO.

Phone: MUrray Hill 7-7644

41 East 42nd Street, New York 17, N. Y.



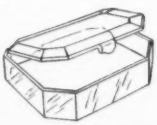
Small Heart, clear cover, opaque base, unhinged—2½" x 2½" x ¾"



S.P., unhinged, clear cover, opaque base; rectangular or oval—5½" x 3" x 1½"

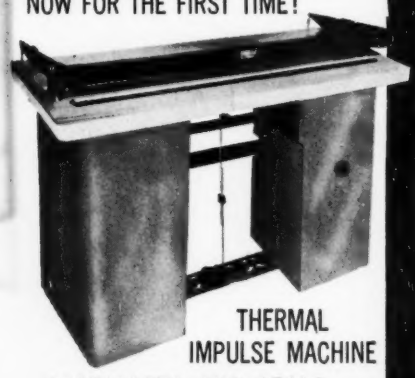


#30 — 3¼" x 2¼" x ⅜", hinged



No. 20 — 2¼" x 1⅜" x ⅝" hinged

NOW FOR THE FIRST TIME!



DRUM LINER SEALER

THERMAL IMPULSE MACHINE

FABRICATES AND SEALS . .

ANY WIDTH UP TO 42" !

- Electronically Controlled Seals
- Single Dial Control
- No Warm-Up Needed
- Cold Heater Bars
- Seals Gusseted Bags to .004

Write Today for Specimen Seals on Your Own Material Or See It Operate At The Nat'l Packaging Show Booth No. 766

Vertrod Corp.

17 Williams Avenue Brooklyn 7, N. Y.

(This listing continued from page 384)

MARSH STENCIL MACHINE CO. *Booth 712.* Hand operated and electric stencil cutting machines; electric dial-taper; marking supplies. *Personnel:* E. J. Marsh, E. G. Krause, H. Brown, L. Moyd. *Hotel:* Madison.

McLAURIN-JONES CO. *Booth 1025.* Display and samples of gummed, coated and specialty papers and water resistant tape. *Personnel:* J. M. McLaurin, E. L. Turley, J. Sullivan, V. Love, R. Converse, A. R. Noyes. *Hotel:* Marlborough-Blenheim.

MEHL MFG. CO. *Booth 1132.* Latest developments in military packaging covering waterproof, greaseproof and moisture-vaporproof protection. All types, grades and classes of current specifications. Applications of polyethylene film in bags and liners, plain and printed. *Personnel:* J. Helm, A. Schrage, J. Sullivan, I. Makrouer, J. J. Tiernan. *Hotel:* Ambassador.

MELROSE PACKAGING, *Booth 1176.* Moisture-vaporproof barrier bags. Grade A and Grade C greaseproof papers. *Personnel:* N. Scher, S. Lewin. *Hotel:* Traymore.

MID-STATES GUMMED PAPER CO. *Booths 261, 263.* Display of new type dispenser "Roll-on-Sealer," which applies the tape directly to the package. Also to be featured is their new super-strength filament tape Tape-Strap. *Personnel:* C. Evans, C. Falkner, A. Bloess, M. Naughton. *Hotel:* Marlborough-Blenheim.

MILLER WRAPPING & SEALING MACHINE CO., *Booths 325, 333.* (See Amsco Packaging Machinery, Inc.)

MILPRINT, INC. *Booth 430.* Exhibit will resemble a miniature shopping center with a series of store fronts in the windows of which will be displayed packages of candy, baked goods, meat products, textiles and all types of foods. Theme of the exhibit, "Packaging That is Successful is Packaging that Sells." *Personnel:* B. Heller, Sr., R. Ewens, A. Snapper, R. Hanson, B. Hefter, L. R. Zimmerman, S. Rosen, P. Hultkrans, C. K. Billeb, D. Faulkner, H. Rosenfeld, T. McAllister, H. Homer, E. J. Manion, J. K. Heller, J. Hopkins, B. Haywood, R. Lundberg, D. Delahunt, D. Warren, D. Garry, D. Houdeshell, P. Graw, J. Kettlewell. *Hotel:* Shelburne.

MILLS, ELMER E., CORP. *Booth 1145.* Display of Millsplastic polyethylene bottles showing broad ranges of standard and custom mold packages for various uses. *Personnel:* E. E. Mills, H. F. Birnberg, M. Braun, M. Tauger, A. Friedberg. *Hotel:* Traymore.

MINNESOTA MINING & MFG. CO. *Booth 571.* Entire line of Scotch Brand



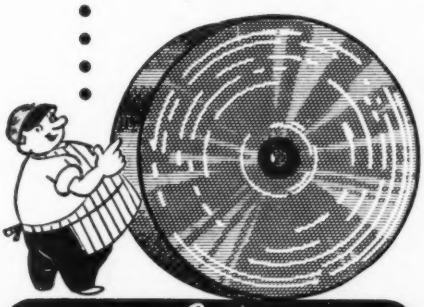
Our thorough knowledge of the rotogravure printer's needs assures top quality inks for paper, board, cellophane, acetate, polyethylene, foil, glassine, Saran and other surfaces.

GOTHAM INK & COLOR CO. *Established in 1937*

5-19 47th AVENUE LONG ISLAND CITY 1, NEW YORK

"RED" *sez:*

There is no better closure method than gummed tape. There is no better gummed tape than ***REDCORE.***



Rexford PAPER COMPANY MILWAUKEE 3, WIS.



Consumers Say...

UNIT SERVICE PACKETS ARE SO HANDY!

Ideal Sales Builders for Powdered Products

Their popularity keeps growing... because Unit Service Packets are the perfect package for any granular or powdered product that can be used in individual services. They insure cleanliness, measured portions and simplified dispensing...at a *tiny* cost per unit.

Send now for samples and details

Fully Sealed Shaker and Sifter Models

UNIT Packet COMPANY

88 GERRISH AVE. CHELSEA, MASSACHUSETTS

tapes for packaging uses, including cellophane and filament tapes. Actual samples of tape applications. Demonstration of dispensers. Manual semi-automatic and automatic taping machines will be shown in operation. *Personnel:* F. M. Andrews, L. M. Berlin, I. Danielson, D. J. Joyce, L. Larson, J. J. List, L. E. Tyas, W. E. Zimmermann. *Hotel:* Shelburne.

MODERN PACKAGING MAGAZINE, *Booth 439.* A place to rest and meet old friends; copies of *Modern Packaging, Modern Packaging Encyclopedia* and other Breskin publications on display. *Personnel:* C. A. Breskin, A. S. Cole, P. H. Backstrom, R. C. Beggs, T. B. Breskin, C. W. Browne, J. M. Connors, J. C. Galloway, B. W. Gussow, Miss P. Hagens, W. F. Kennedy, M. A. Olsen, S. S. Siegel, W. C. Simms, C. A. Southwick, Jr., L. Stouffer, Miss G. Tarragano. *Hotel:* Claridge.

MONSANTO CHEMICAL CO. *Booth 511.* Display of variety of plastic packages available today, including containers of acetate, styrene and vinyl plastics. A small injection molding press will be operated to demonstrate the ease and speed with which styrene containers may be molded. *Personnel:* C. Lichtenberg, E. L. Hobson, R. C. Evans, D. Guarnaccia, T. S. Lawton, E. D. Kennedy, F. W. Meuschke, J. C. Brunner, S. E. Glick, C. F. Reeves, J. P. Skeehan, C. H. Richards, A. A. Sutter, E. Tolles, R. S. Garvie, R. M. Thews, A. K. Zimmerman.

MOORE, KENNETH J., & CO., *Booths 115, 117.* Display of Gluemaster Round Can-Tainer Labeler with automatic feed, label paster; table and carton gluers, Kleen Sealer line of hand applicators. Newly designed equipment for palletizing cartons; re-activating labels, in actual operation. *Personnel:* K. J. Moore, M. O. Tiemann, R. Haviland, S. W. Scott, G. Knaack.

MOSSTYPE CORP. *Booths 267, 269.* Display of different types of rubber printing plates and design rollers used for aniline process printing of various packaging and decorative materials; samples of papers, films and foils printing from Mosstype plates; presentation of company's production service from original artwork to pattern engraving to plates. The Mosstype Mounter-Proofer, for setting up rubber plate jobs will be demonstrated with a "life-size" reproduction and illuminated color slides. *Personnel:* F. Moss, A. Bradie, J. Kirby, H. Myers, J. Gerard. *Hotel:* Shelburne.

MRM CO., INC. *Booth 367.* Automatic labeling machinery; rotary liquid filling machinery, gravity or vacuum; semi-automatic liquid filling equipment, gravity or vacuum for all liquids in glass or metal containers, speed up to 400 per min. A new high-speed, 12-spout rotary filler to handle small polyethylene squeeze bottles and other easy-to-tip bottles. Display of customers' products. *Personnel:* H. D. Manas, F. Rossetti, R. J. Dealy, F. X. Dealy, V. J. Gallagher. *Hotel:* Dennis.

MYSTIK ADHESIVE PRODUCTS, *Booths 156, 158.* Display features Mystik pressure-sensitive cloth and paper tapes with particular emphasis on tapes for industrial packaging. *Personnel:* S. L. Ostrenga, C. Kurzweil, W. A. Givens. *Hotel:* Ambassador.

NASHUA GUMMED & COATED PAPER CO. *Booths 616, 620.* Protective and decorative papers including waxed, gummed, coated, heat-sealing label stock, velours, trademark papers, printed cellophane and glassine, printed paper specialties and gummed tape dispensing machines. *Personnel:* D. Ramsay, J. R. Carter, K. R. Hines, H. W. Taylor, A. Sanborn, W. P. Lyle, R. W. Phillips, W. Nicholson, H. L. Openshaw, J. Wilson, B. Bundy, R. Wheeler, R. Fraser, O. Neugebauer, J. T. Winn, C. Graves, A. F. LaVey, M. Wexler, M. Radin, R. Campbell. *Hotel:* Claridge.

NATIONAL ADHESIVES. *Booth 445.* Company's whimsical trade character will invite visitors to come in and relax in



Look to General Plastics for the revolutionary improvements in packaging that "Teflon" is making possible.

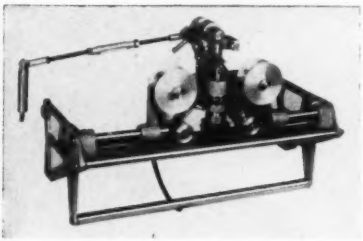
For example, your present heat sealing machines can be made more efficient, cheaper to operate, by the proper application of a thin layer of this new du Pont miracle material to heating surfaces. Also, "Teflon" on dies, sealer bars, "sewing" machine rollers, etc., stops sticking by polyethylene, pliofilm, cellophane and other films.

You may find a solution to many problems in a "Teflon" coating job by General Plastics. Write today.

"TEFLON" made by E. I. du Pont de Nemours & Co.

GENERAL PLASTICS CORP.
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THE *Rainbow* TRANS-LEAF CODING ATTACHMENT TO PACKAGING MACHINES FOR IMPRINTING



CELLOPHANE
WAXED PAPER
GLASSINE
FOIL
TISSUE
ETC.

models for nearly all major wrapping machines

The RAINBOW Trans-Leaf Coder is ideal for bacon wraps, bakery products, frozen food cartons and anything else wrapped in material which will accept hot roll-leaf stamping. For both continuous and intermittent types of automatic wrapping machines.

IMPRINTS IN ALL COLORS
no waste no messy ink
no makeready
minimum maintenance

This is only one of a complete line of custom-built package and carton marking equipment. Your problems will receive prompt attention.

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454 Baltic Street Dept. MP MAin 4-8511 Brooklyn 17, N. Y.

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for barrier paper and dip coating specifications JAN-P-115

Special coatings for paper & board

Impregnating and laminating waxes and compounds

Fungus-proofing waxes to meet all government specifications

Our laboratory will gladly cooperate in new developments

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130 26th Street,
Brooklyn 32, N. Y.

12 SIZES IN STOCK!

PAPER BAGS

DUPLEX GLASSINE LINED



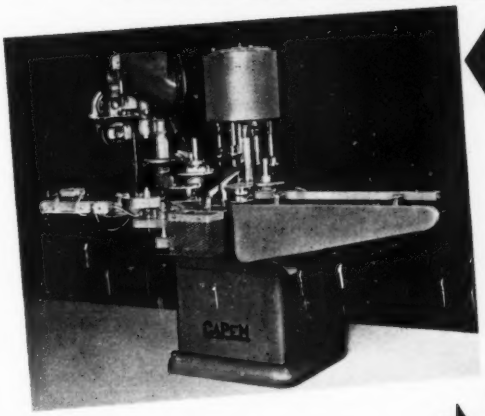
for Coffee, Food Products, Chemicals, Powders, etc.

Special & Printed Bags to Order.

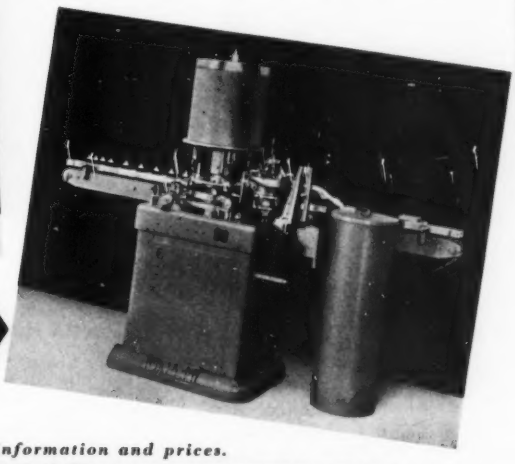
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ATLANTIC COFFEE BAG CO., Inc.
220 KOSCIUSKO ST · BROOKLYN 16, N.Y. · NEVINS 8-8100

The TOP PRODUCTION TEAM for Tablet and Capsule Lines



CAPEM- Applies ALL TYPES of screw caps .... Fully automatic .... Capacities from 2000 to 10,000 an hour .... Delivers a leak-proof seal .... 1, 2, 4, 6 and 8-spindle models .... More in use than any other make of capper.



KOTTONER- Follows basic design of CAPEM cappers .... Protects sterility of wadding .... Quickly changed over from one size container to another .... Capacities from 40 to 100 containers per minute .... The perfect team-mate for CAPEM on capsule and tablet lines.

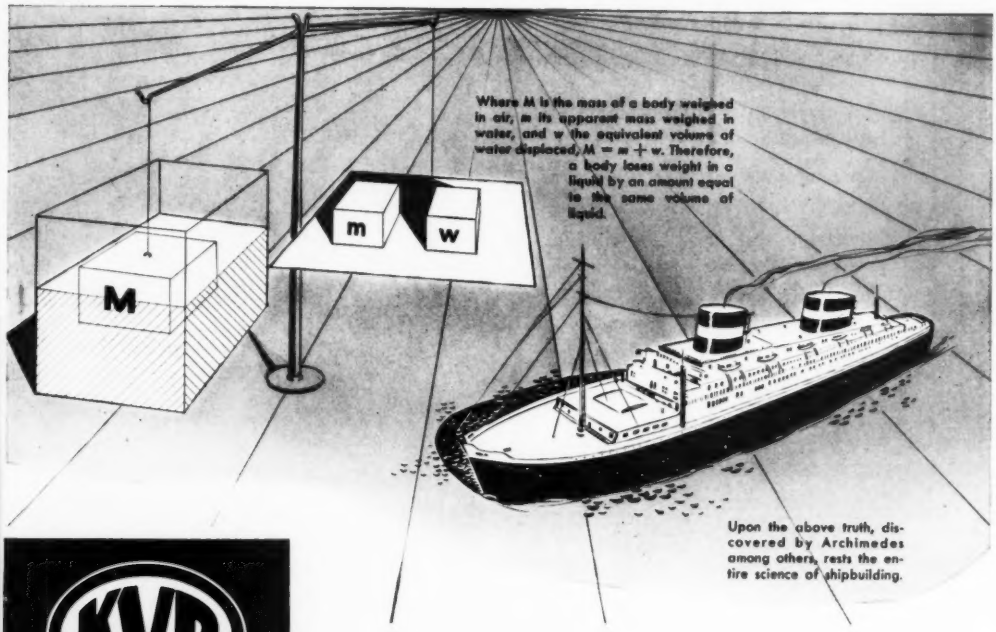
Write for complete information and prices.

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KVP PAPERS for the FOOD INDUSTRY

THE FOOD industry long ago discovered that properly engineered paper is a useful servant. It not only preserves the cleanliness and flavor of foods . . . in many instances it also sharply stimulates sales through appealing designs.

For years KVP has specialized in producing papers for the food industry . . . tough for protection at all times, colorful for selling at the right time.

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MEAT
Packing — Locker
Retail

DAIRY
Butter — Cream — Cheese
Ice Cream — Milk

FISH • FRUIT • FROZEN FOODS
POULTRY • SHORTENING • VEGETABLE

National's "Cabin-in-the-Pines" booth. Information regarding latest developments in heat-seal coatings, laminations and new vinyl acetate polymers and copolymer program of formulated and base products. *Personnel:* F. Greenwall, A. Halden, D. Pascal, W. Thune, L. Klempner, R. McGallin, T. A. White, C. G. Caldwell, J. Clay, J. Snyder, F. Bradley, H. Kaufmann, B. Gordon, B. Sederlund, M. Battaglia, S. Gold, P. Weitz, F. Murphy, A. Edison, F. Trachtenberg, J. Yurman, E. Shephard, B. Reger, D. Graham, M. Snyder, B. Schaub, E. Hofmann, H. Oldham. *Hotel:* Ritz-Carlton.

NATIONAL LABORATORIES & MFG. CORP. *Booth 1276.* Demonstration unit to show the ability of the Scan-A-Web to stop optically the motion of a moving web at speeds from zero up to any requested speed. *Personnel:* B. H. H. Noble, J. J. Bogert. *Hotel:* Ritz-Carlton.

NATIONAL METAL EDGE BOX CO. *Booth 332.* Display of boxes produced by the Metal Edge method; a special display featuring Metal Edge for defense; Metal Edge stayer in operation. *Personnel:* M. P. Junkin, C. Paist, J. A. Jobes, G. C. Culshaw, W. G. Muhleisen, J. C. Goodchild, E. L. Bray, W. K. Hollinger, R. H. Hollinger, J. E. Fleagle, W. G. Muhleisen, R. W. Beales, C. H. Vetterlein. *Hotel:* Shelburne.

NATIONAL WOODEN BOX ASSN. *Booth 650.* Display of nailed wooden boxes and crates carrying a number of hard-to-pack items utilized both by military and civilian consumers. Demonstration of proper nailing of wooden containers and presentation of common nailing errors. *Personnel:* C. D. Hudson, C. T. Cackley, W. E. Hughes. *Hotel:* Ambassador.

NEW JERSEY MACHINE CORP. *Booth 512.* The Challenger, new addition to LabelDri series for intermediate speed in "No Glue" bottle labeling, range 50 to 150 per minute; also The Champion and The Pony. *Personnel:* G. W. Von Hofe, R. Wellbrock, J. T. Brown, P. L. Heguy, M. C. Smith, A. Schaefer. *Hotel:* Claridge.

OLIN CELLOPHANE, *Booth 722.* Olin cellophane to suit a wide variety of packaging needs. *Personnel:* J. L. Spencer, R. J. Kautz, P. R. Hopper, G. W. McCleary. *Hotel:* Shelburne.

OLIVER MACHINERY CO. *Booths 268, 272.* "Oliver" #799-EJ wrapper complete with #886 labeler and #801 imprinter. Showing envelope style end-folds and glue or solvent-sealing attachments; "Oliver" #806 imprinter, cut-stacker; "Oliver" #804 top-of-package labeler. *Personnel:* S. H. Massingham, H. B. Tut-

Ladies Don't Smoke Cigars *but*



. . . they will buy them by the box as gifts when properly approached. El Producto's 1952 Valentine's Day promotion features this special box top lithographed in red, black and gold and embossed – plus a poster in the same striking colors for use in windows. A less ambitious program worked well in 1951. Dealer response to this year's offering has been wonderful. Next time you need promotional aids that spark dealer enthusiasm – because they build consumer sales – have them . . .

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Lithographing Corporation
MEMBER OF THE POINT OF PURCHASE ADVERTISING INSTITUTE
Main Office and Plant: Glen Cove, N.Y. Sales Offices in Philadelphia, Chicago, Louisville and Tampa

See How to Boost Your Packet Profits!



AMERICAN MANAGEMENT ASSOCIATION
21ST NATIONAL PACKAGING EXPOSITION
ATLANTIC CITY • April 1-4 1952

Uniformly, accurately filled packets on Brown Bag Machines are food, drug and hardware profit-builders. Double Drum Automatic Filling and Sealing Machine (above) fills as many as 24,000 packets per day with small screws or nails, automatically by count. Brown Bag's P. F. 100 Automatic Machine, with optional Heat Sealing Unit also, handles ounce fractions to two ounce quantities of powders, granules and crystals — up to 60 packets per minute.



See us at Booth 112

BROWN BAG FILLING MACHINE CO., INC.
FITCHBURG, MASS.

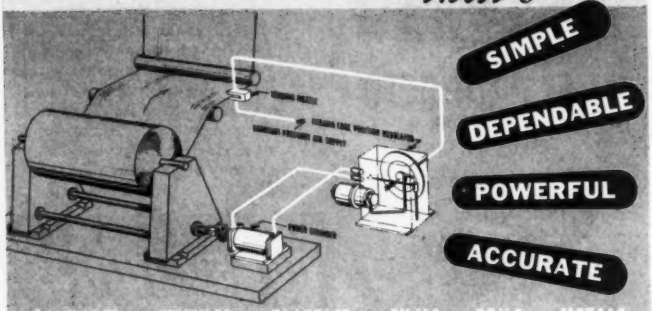
Representative: Burnard C. York Packaging Machinery, 5807 West North Avenue, Chicago 39, Illinois

West Coast Representatives: Peter D. Bowley & Assoc., 210 Mississippi Street, San Francisco, Calif.

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that's



SIMPLE

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ACCURATE

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This schematic drawing shows how the Askania system works on an unwind control. Control at the wind-up or in between works on the same principle. Low-pressure air is piped to one side of the sensing nozzle. Pressure recovered at the other side of the nozzle is a direct measurement of the edge position. The regulator diaphragm responds to changes in recovered air pressure to move the pivoted jet pipe, which is discharging oil at two small orifices. As the jet pipe moves toward one orifice and away from the other, the oil pressures at opposite ends of the power cylinder become unequal, and the piston moves to correct the edge position.

See Askania Edge Position Control in action at the 1952 Packaging Show, Booths 849-851.

21ST NATIONAL PACKAGING EXPOSITION

ATLANTIC CITY · April 1-4 1952

ASKANIA Edge Position Control is everything you want in a web guiding system.

It's simple. Only two moving parts. No electronics. Any mechanic can maintain it. You can depend on the Askania system for years of service without trouble. It's self-lubricated; lint or dust won't clog it.

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Whatever your accuracy requirements, Askania Edge Position Control has the built-in accuracy to meet them. The regulator responds to the slightest change in edge position and at the same time provides a control system that is stable. Critical users have selected the Askania System as standard for simplicity and day-in-day-out accuracy.

Let an Askania Field Engineer tell you more about Askania Edge Position Control. Write for full information.

ASKANIA REGULATOR COMPANY

252 E. Ontario St., Chicago 11, Ill.

A Subsidiary of General Precision Equipment Corporation

ASKANIA HY-PERFORMANCE HYDRAULIC Controls

hill, W. Lowthian, A. Blake, F. Caldwell. *Hotel:* Shelburne.

OWENS-CORNING FIBERGLAS CORP. *Booth 1044.* Exhibition of various reinforced papers and tapes in which Fiberglas yarns and scrim fabric have been used for reinforcing media. *Personnel:* R. J. Black, W. B. Morrison, R. J. Lasko.

PACKAGE MACHINERY CO. *Booth 311.* New carton-forming machine, Tray-Lock model, with provision for gluing the locks or using without glue; new cigar wrapping machine, speed 100 to 120 per minute, applies cellophane wrap and cigar band, latter serving as easy-opening device. Universal 6 textile wrapping machine in operation wrapping sheets and pillow cases in continuously printed heat-sealing cellophane, with or without a card. *Personnel:* R. Clar, T. Miller, C. Palmer, H. Mosedale, J. Kelly, E. Westervelt, J. R. Phin, F. Todt, H. Schoener, A. Henkel. *Hotel:* Dennis.

PACKAGING INDUSTRIES. *Booths 1018, 1020, 1032.* Complete line of Sentinel heat-sealers, ranging from a 3½ lb. portable model to a 6-ft. bench model; demonstration of the Sentinel vacuum filler used in the cosmetics, drug, and food fields for the vacuum filling of dry powders by a controlled vacuum method. *Personnel:* H. A. Rohdin, G. Chisholm, L. H. Merrill, J. N. Bode, C. Jacobson, A. Rohdin. *Hotel:* Ambassador.

PACKAGING PARADE, *Booth 550.* A restful stopping-off place for those in need of relaxation, a refreshing drink of pure chilled water, sight-seeing and packaging suggestions. *Personnel:* M. Haywood, Jr., M. O. Pottlitzer, H. E. Roden, A. J. Ray, I. R. Megargee, G. O. Manypenny, R. B. Holmgren, W. A. Biggs, C. S. Abbott. *Hotel:* Shelburne.

PAISLEY PRODUCTS, INC. *Booths 233, 235.* Newest developments in packaging and labeling glues for all types of hand application and machine requirements; "Adhesive Bar" will display samples of the new products and literature; laboratory reports and technical service bulletins will be available for free distribution; technical members will be on hand to answer questions and make recommendations for using the new adhesives developed for civilian and defense packaging operations. *Personnel:* J. Morningstar, M. Stempel, J. B. Morningstar, E. C. Lenz, L. J. LaBrie, J. Ranft, D. Bookshester, S. Schuller, A. R. Nordone, E. Bearman, M. Hillary, J. Strasser. *Hotel:* Marlborough-Blenheim.

PAK-RAPID, INC. *Booths 754, 756, 758. Personnel:* J. Irvine, H. P. Lewis, B. Karp, R. Muny. *Hotel:* Ambassador.

PARAMOUNT PAPER PROD. CO.,



CURTIS

FOLDING BOXES

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OUTSTANDING PACKAGING

Curtis craftsmen enjoy meeting the challenge of creating a merchandising container such as the Swank box illustrated. Yet we take just as much care and just as much pride in producing even the simplest folding box. The Swank box called for ingenious design, close-register printing and constant supervision of details. The striking and durable Lamcote finish — another Curtis extra — adds much eye appeal. Curtis takes these things in stride because we build quality into every job, yet keep costs within reasonable bounds. Ask Curtis to show you how this better service means better boxes for you.

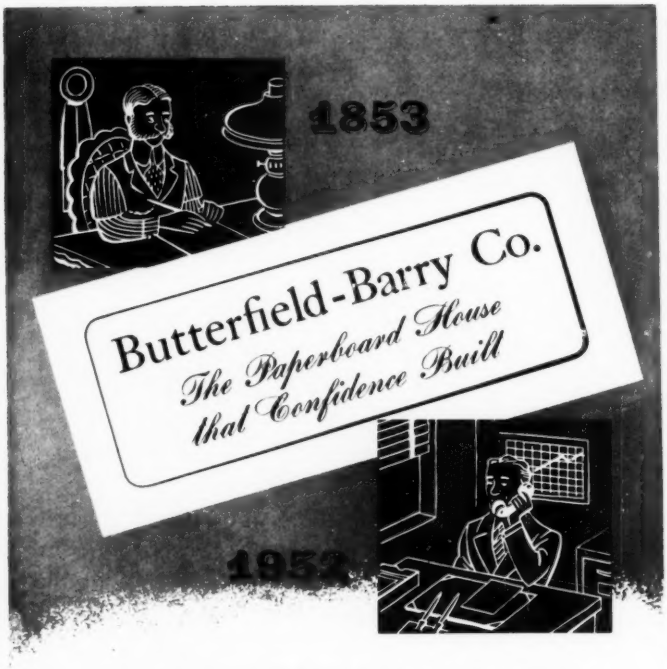
ART DESIGN: RICHARD ARBIB, NEW YORK. LAMINATION: ARVEY CORPORATION, NEW YORK.

S. CURTIS and SON, Inc.

ESTABLISHED 1845

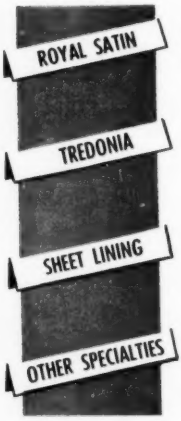
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The most modern equipment in the industry. Double lining in one operation. Book, News, Chocolate Glassine and Special Papers.

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INC. *Booth 840.* Samples of printed rolls, bags, and sheets made of all types of films and papers—multicolored printed; newly-created heat sealing window-front bag for food packaging. *Personnel:* T. Isen, H. Leopold, L. Silvers, B. Klausner, A. Isen.

PERRY METAL PROD. CO., INC. *Booths 1150, 1152.* Pharmaceutical packaging machinery, including antibiotic powder filling machines and automatic vial stoppering machines. *Personnel:* M. Bodkin, S. Sack, P. Lannert, C. Block, M. Feldman. *Hotel:* Ambassador.

PETERS MACHINERY CO. *Booths 642, 644.* Exhibition of new Model CCY automatic adjustable carton closing machine; also carton forming machine. Display of packages produced by company's line of equipment. *Personnel:* H. L. Greene, B. C. Lewis, J. Boehler. *Hotel:* Claridge.

PLASTICS WORLD, *Booths 202, 303.* Copies of *Plastics World* and *Plastics News Letter. Personnel:* C. W. Cleworth, G. W. Rhine, W. B. Cowilich, W. P. Pincher. *Hotel:* Claridge.

PNEUMATIC SCALE CORP., LTD. *Booth 544.* Demonstration of Rota Cleaner for air cleaning of new glassware; also newly developed Sterling # 2 cap feeder for molded and metal turn-on closures up to 37 mm. size; miniature model of Vacuflow powder filling machine. Display of packaged goods illustrating operations performed on company's equipment. *Personnel:* N. S. Ross, W. E. Coughlin, A. T. Buskens, L. F. Blackwell, O. H. Jultin, J. Yates, H. H. Conklin, G. L. Libby, R. H. Eiff, K. M. Peterson. *Hotel:* Ambassador.

P.N.R. CORP. *Booth 933.* Oto-Pak Model 140, a new sequence packaging machine for polyethylene and/or Kraft-foil, makes the bag and holds it open so that it can be filled. Size range 3 in. by 3 in. to 10 in. by 14 in., speed 8 to 25 per min. *Personnel:* W. A. Reynolds, R. Keegan, N. Nye, R. Penn, M. A. Myers, A. N. Bloom. *Hotel:* Ambassador.

POLYKEN INDUSTRIAL TAPE, *Booth 1145.* Pressure-sensitive industrial tape; cloth and plastic industrial tapes for a wide variety of packaging applications. *Personnel:* J. E. Lee.

POPPER & SONS, INC. *Booths, 837, 839, 841.* High production vial washing and filling equipment, automatic ampoule filling and sealing machine, tablet counting machine, automatic and hand-operated marking machines for printing on metal, glass, plastics and paper containers. Also label printing machines. *Personnel:* I. A. Popper, W. L. Popper, R. A. Popper, G. Popper, F. J. Cozzoli, J. M.

Sparkling Packaging *Sweetens* Candy Sales

Mouthwatering — that's the way candy should look! . . . that's the way it always looks in sparkling Crystal Tube packages! Plain or printed transparent packaging by Crystal Tube puts eye-and-buy appeal in your candy products. Crystal Tube's experience, modern methods and known reliability are the sales-making combination for you. To show your candy at its best — call Crystal Tube today for friendly assistance on your packaging needs. Our ideas and packaging know-how are at your disposal.





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Cozzoli, R. G. Illner. *Hotel:* Shelburne.

POTDEVIN MACHINE CO. *Booth 460.* Label activator for activating delayed-tack thermoplastic labels; continuous-type automatic feed gluing machine; completely automatic precision-built labeler and coder for vials or ampuls from 1- to 10-cc. size; also a table-model machine which applies 32 slip labels per min. to collapsible tubes. *Personnel:* J. H. Richmond, J. S. Hawkins, S. Norton, J. Donohoe, O. L. Denton, T. Gibson, A. Miller, C. E. Duerr, J. S. Hamilton, W. Hamilton, M. B. Jones. *Hotel:* Dennis.

PRINTING MACHINERY CO. *Booth 1065.* Demonstration of the new Magnesium Sterling toggle hook and base system which is used for mounting and registering flat bed letterpress printing plates; PMC die cutting machine and the PMC Warnock rotary hook system. *Personnel:* L. Augustine, H. Lindberg, A. R. Mahoney, W. C. Arens. *Hotel:* Claridge.

RADIO CORP. OF AMERICA (and Eriez Mfg. Co.), *Booths 216, 220.* An operating model of the RCA metal detector; a working demonstration of Eriez permanent magnet separators; an operating RCA industrial television camera chain. *Personnel:* M. S. Klinedinst, W. P. Davison, D. D. Pendleton, H. B. Merrill, J. Green, R. Koehler, P. A. Greenmeyer, W. L. Conner, R. F. Merwin, J. F. Kern, Jr., C. Harris, R. A. Roosevelt. *Hotel:* Shelburne.

REDINGTON, F. B., CO. *Booth 305.* Display of latest high-speed cartoning machine, adjustable, for handling two sizes of Alka Seltzer packages; samples of other products handled on various types of Redington machines; photographs of various types of special machines; advertising literature featuring new Redington catalog. *Personnel:* C. L. Barr, E. A. Siebert, J. C. Hotton, K. C. Craig, H. Allport, Jr., A. Walkey, J. W. Hoskins, W. F. Dent.

REEVES PULLEY CO. *Booth 957.* Display of different variable speed control units, together with various controls: Reeves Vari-Speed Junior Motor Pulley for light machinery; a standard Vari-Speed Motor Pulley; three variable speed transmissions and two Vari-Speed Motodrives. *Personnel:* R. D. Moore, P. C. Talbot, H. Gepfert, C. E. Hill, I. V. Falk, R. Reeves. *Hotel:* Ritz-Carlton.

RESINA AUTOMATIC MACHINERY CO., INC. *Booth 1250.* Resina high-speed capping machine. *Personnel:* E. N. de Bastos, S. Resina, A. Weller. *Hotel:* Dennis.

REYNOLDS METALS CO. *Booth 451.* Demonstration of how to use aluminum foil in many of the approved methods of military packaging. Samples of outstanding civilian packages using aluminum foil. Samples of paper labels and overwraps. *Personnel:* D. P. Reynolds, P. Murphy, E. Shaw, D. Ostroot, J. C. Bjorkholm, W. Townsend, G. DuCharme, D. Lewis, J. Cullinan, D. Sargent. *Hotel:* Claridge.

RIEGEL PAPER CORP. *Booth 411.* Display of original packages and posters from 1880 to 1920. Will also feature a display of Riegel papers used in the protective packaging of foods. *Personnel:* F. S. Leinbach, P. M. Beach, T. F. Donoghue, F. L. Triggs, A. P. Mitchell, C. E. Schaehrer, C. W. Hoffman, B. Ballard, E. G. Penn, R. A. Simpson, J. Parry, R. A. Schlienz, A. J. Ericsson, H. A. Stone. *Hotel:* Claridge.

ROSS & ROBERTS SALES CO., INC. *Booth 919.* Calendered unsupported vinyl film, plain and embossed; extruded vinyl film. *Personnel:* A. V. Roberts, R. J. Snyder, G. H. Pollack, L. A. Bergman, P. J. Tremonte, M. E. Reiner. *Hotel:* Claridge.

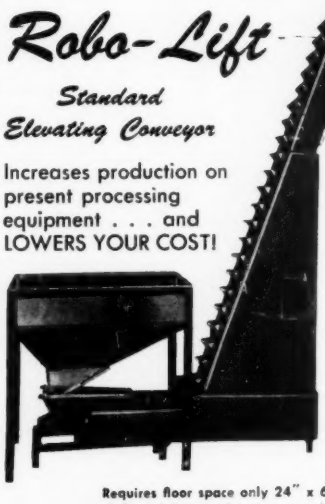
ROTO BAG MACHINE CORP. *Booths 669, 673.* Demonstration of cellophane, Pliofilm and polyethylene bag machines. *Personnel:* J. H. Brezinski, H. K. Pinger, R. H. Schnoor. *Hotel:* Ritz-Carlton.

(This listing continued on page 400)

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Increases production on present processing equipment . . . and LOWERS YOUR COST!



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Three-color, 31" wide "Wolverine Hydro-Printer," complete with unwind, back feed roller, cooling rolls, and jack-shaft driven rewind unit.

Prints on — *foil • film • board • plastic • cellophane*

The outstanding printing results, simplified operation, matchless versatility and rigid, compact construction of the "Wolverine Hydro-Printer" are creating new standards for evaluating presses and their performance within the packaging industry.

It's quiet and vibrationless in operation, running with amazing smoothness, even at extremely high speeds. What's more, it's so designed that absolute color register is maintained while the unit is running.

- hydraulic, instant on and off impression control
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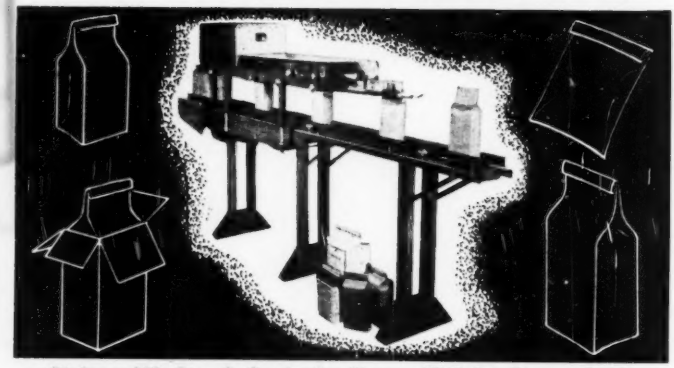
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Makes Sift-Proof Seals In Heavy Weight Paper Bags

Fry Model CSG automatically makes a double folded sift-proof heat seal in the top of any heavy weight paper bag. The first fold is securely heat sealed; the second is glued for extra safety.

Bags handled include polyethylene and plioflim lined, polyethylene coated and those with thermoplastic top sealing bands. Simple adjustments for bags of various heights. This model also handles bags which are not heat-sealable by gluing the folds.

Machine above is perfect for granular or fine products such as insecticides, chemicals, powdered paints, fertilizers, dog foods, etc. Other models available . . . when writing, please submit a sample of your bag and your product.

GEORGE H. FRY COMPANY 167 Front Street N. Y. 38, N. Y.

SCHROEDER MACHINES CORP. *Booth 725.* Case sealing, case opening and forming and case-packing machines. *Personnel:* A. C. Schroeder, J. E. Stearns, B. Nagy, C. J. Grant, Jr., F. DeCamp, D. D. Jackson, F. C. Shirriff, W. C. Boehmer, T. Healy. *Hotel:* Haddon Hall.

SHAW-RANDALL CO., INC. *Booth 244.* Display of rigid transparent containers, combination paperboard and transparent packages; one-piece formed units of irregular shapes; new style packaging for carded merchandise. *Personnel:* C. K. Shaw, Jr., E. S. Lancaster, Miss A. Huxford, Miss E. T. Oppa, H. Rogers. *Hotel:* Shelburne.

SHELLMAR PRODUCTS CORP. *Booth 338.* Display of a variety of packages for use in specific industries, representing the latest thinking in production in the flexible packaging field. *Personnel:* W. E. Hill, W. L. Moore, R. L. Lee, E. F. Burke, J. H. Huse, W. C. Curtis, D. N. Rabishaw, T. W. Koch. *Hotel:* Shelburne.

SHELTON MFG. CO., INC. *Booths 157, 159, 161.* New Tufedge corrugated boxes; new Tufwall shipping containers; Shelltube, new addition to the line of corrugated papers, scored for rectangular shaping; item which can be used in the place of lined corrugation, called Shelliner; Shellnest, for corrugated carton nestings. *Personnel:* A. I. Nierenberg, S. Katcher, A. Moscowitz, M. Stolbach, H. T. Shane. *Hotel:* Shelburne.

SHERMAN PAPER PRODUCTS CORP. *Booth 361.* Display of brilliant colored one- and two-color printed trays, containers, sleeves and U-boats made of Corrodek. Also will feature a dozen new cost-saving ideas for light to heavy duty cushioning; all the new and approved barrier materials in Sherman's V-line. *Personnel:* G. Sherman, E. W. Pitt, A. Lytle, J. Feaver, P. Nottage, J. R. Kennedy, L. E. White, R. S. Wade, J. N. Bode, G. A. Duffy, H. B. Donovan, J. McLaughlin, L. Beaulieu, K. Green. *Hotel:* Claridge.

SIMPLEX PACKAGING MACHINERY, INC., *Booths 325, 333.* (See Amsco Packaging Machinery, Inc.)

SMITH, H. P., PAPER CO. *Booths 163, 167.* Display of thermal-resin coating of paper, board and cloth. Various types of plastic coated papers. *Personnel:* C. C. Sherman, G. W. Ross, L. F. Swee, J. R. Lawlor, A. E. Gerken, L. M. Burgess. *Hotel:* Claridge.

SNYDER, L. W. *Booth 1118.* Hand, foot, air and electrically operated stapling equipment. *Personnel:* W. T. Host, H. F. Baker, F. X. Myers, Jr., L. W. Snyder.

SPERRY CORP. *Booths 169, 171, 173.* Mural reproductions of the Master, Challenger-Gladiator, Monitor-Aristocrat, *(This listing continued on page 404)*

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The literature and samples described here contain valuable data that will help increase the operating efficiency of your business.

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MILITARY PACKAGING GUIDE. Handy size guide furnishes an outline of government packaging involving protective barriers which conform to military specifications. Mehl Manufacturing Co. **(C-251)**

"NEOPRENE" TREATED PAPER. Technical bulletin describes wet strength, impact strength, chemical resistance and other properties which can be obtained in paper by adding "Neoprene" rubber latex to the pulp. Table suggests several uses. E. I. du Pont de Nemours & Co., Inc. **(C-252)**

LIQUID FILLING MACHINES. Folder describes several semi-and fully automatic vacuum and gravity fillers for all types of liquids. MRM Company, Inc. **(C-253)**

LABELING IDEAS. Brochure contains hundreds of suggestions on sizes and styles of labels for packaging and shipping. Ever Ready Label Corp. **(C-254)**

SLITTING MACHINE. Bulletin contains data on a high speed slitter which operates by means of circular knives effecting a scissor cut action. Hol-Bag, Inc. **(C-255)**

PREPACK HEAT SEALING EQUIPMENT. Series of seven bulletins on heat sealing equipment, closures, and sheet dispensers of use in prepackaging many vegetable and other products. Cleveland Lathe & Machine Co. **(C-256)**

PACKAGING IN SARAN. Folder illustrates a number of food products which are successfully packaged in Saran plastic film. Points out various advantages. Dow Chemical Company. **(C-257)**

LITHOGRAPHED METAL CONTAINERS. Folder contains fourteen four-color illustrations of round and square metal containers lithographed in seasonal and decorative designs. Olive Can Co. **(C-258)**

"VUEPAK" FOR TRANSPARENT PACKAGING. Product report gives detailed analysis of various packaging uses of "Vuepak" cellulose acetate plastic sheet. Monsanto Chemical Co. **(C-259)**

DRY PRODUCT PACKAGER. Question and answer bulletin points out advantages and features of the new combination automatic "Whiz-Packer" and endless belt conveyor for filling flat bottom containers with dry products. Frazier & Son **(C-260)**

TUBE FILLING AND CLOSING MACHINES. Bulletin contains data on the features of several hand-operated and semi-automatic machines for filling and bottom sealing collapsible tubes. Perl Machine Mfg. Co. **(C-261)**

TESTING WAXES. Folder gives interesting report on the various characteristics of waxes such as melting point, viscosity, penetration, and color, and the tests involved in checking them. Barco Oil Co. **(C-262)**

COUNTING AND PACKAGING MACHINE. Details about the "Count-O-Matic E," an electronic machine which, at high-speed, counts small parts of every description. U. S. Engineering Co. **(C-263)**

COLLAPSIBLE TUBES. Booklet contains much helpful data on types of tubes, tube sizes, closures, spouts, pipes, and metals available. Standard Collapsible Tube Co. **(C-264)**

KLINGROSE GRAVURE PRESSES. Folder points out features and advantages of Klingrose gravure presses for high speed printing in one to eight colors. Lists various auxiliary equipment. Klingrose Gravure Div., American Type Founders. **(C-265)**

AUTOMATIC SCREW CAPPERS. Folder illustrates and describes the features of several automatic and semi-automatic machines for sorting, feeding, and applying many sizes of screw caps to bottles, jars and cans. Resina Automatic Machinery Co., Inc. **(C-266)**

PROTECTIVE CUSHIONING MATERIAL. The features and advantages of "Celluliner" high compressive resilience cushioning material for interior packaging is described in a bulletin issued by the Gilman Brothers Co. **(C-267)**

BAGS AND WRAPS. Portfolio of flexible package samples converted from all types of films and papers and featuring such graphic arts processes as rotogravure, aniline and letterpress. Oneida Paper Products, Inc. **(C-268)**

"ALSECO" SEALS AND SEALING MACHINES. Brochure gives details on the unique application method for "Alseco" seals for bottles and other containers. Shows various sizes and unusual types which are available, and machines for applying them. Aluminum Seal Co., Inc. **(C-269)**

"BANKS" LABELER. Broadside folder illustrates several variations of the "Banks" labeler for high speed application of body, strip, and neck labels to containers of all sizes. Stokes & Smith Co. **(C-270)**

ICE CREAM CARTONING. Bulletin describes two machines, both automatic, one for setting up ice cream cartons and the other for closing the cartons after they have been filled. Package Machinery Co. **(C-271)**

PRESERVATIVE COATING. Folder gives details about Seal-Peel hot dip strippable coatings for protecting products from moisture damage. Seal-Peel, Inc. **(C-272)**

DEVELOPMENTS IN FLUORESCENCE. House organ gives latest application data on the use of "Day-Glo" fluorescent materials in packaging and other applications. Switzer Brothers, Inc. **(C-273)**

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CANDY WRAPPING. A high speed machine for over-wrapping candy boxes with cellophane or other film is described in a folder issued by Hayssen Mfg. Co. **(C-274)**

TUBE FILLERS. The major items in the Colton line of automatic, semi-automatic, and hand-operated tube fillers and closers, and can and capsule fillers is described in a broadside folder. Arthur Colton Co. **(C-275)**

CARTON WRAPPERS. Bulletin describes two semi-automatic machines for wrapping cartons; the first forms a sleeve around the package, the second tucks and seals the ends. Charles E. Douglas & Co., Ltd. **(C-276)**

HANDLING PRINTING ROLLS. The Kohler system of roll handling in the printing industry is described in a bulletin issued by the Dilts Machine Works, Div. of The Black-Clawson Co. **(C-277)**

75 LB. CAPACITY SCALES. A new line of 75 pound checkweighing and production scales, with either shadow indication or mechanical indication is described in this folder. The Exact Weight Scale Co. **(C-278)**

"GLUEMASTER" LABELER. Folder tells of the advantages of the "Gluemaster" Round Can-tainer Labeler which registers labels with an overall coverage of glue onto various types of round objects. Kenneth J. Moore & Co. **(C-279)**

AUTOMATIC WEIGHING AND FILLING MACHINE. Information on a high speed weighing and filling machine incorporating the exclusive "Hy-Tra-Lec" principle of weighing with new mechanisms for handling the product being packaged. Wright Machinery Co. **(C-280)**

GLUERS AND SEALERS. Illustrated leaflet listing detailed information on various automatic gluers and sealers for shipping cases. Standard-Knapp, Div. of Emhart Mfg. Co. **(C-281)**

PHARMACEUTICAL PACKAGING EQUIPMENT. Brochure describes "Perfektum" machines for washing and filling ampoules, vials, and bottles, sealing ampoules and counting and filling tablets. Popper & Sons, Inc. **(C-282)**

"BEE-LINE" LABELERS. Bulletin contains brief description, container and label size ranges, and floor plans of three labelers. Economic Machinery Co. **(C-283)**

ANILINE PRESSES. Broadside folder illustrates the new line of "Nasko" aniline presses for printing in two, three, or four color combinations. Wolverine Paper Converting Machinery Co. **(C-284)**

HEAT SEALING CRIMPERS. Brochure illustrates and describes the complete line of Wrap-Ade heat sealing crimpers—both automatic and semi-automatic. Included are illustrations of the various sealing patterns available. Wrap-Ade Machine Co., Inc. **(C-285)**

CONVEYOR. The features of the "Robo-Lift" standard elevating conveyor which embodies an automatic feed. Includes information on the operation of the conveyor in connection with other packaging equipment. Counsel Machine Co. **(C-286)**

PROTECTIVE CUSHION WRAP. Booklet tells about "Sof-Rap," a new exterior-interior wrap and "Krepak," a single-ply crinkled interior wrap cushioning, both of which should interest manufacturers and packagers of hard goods. Nichols Paper Products Co. **(C-287)**

TICKET PRINTER. "Imprima" machine for printing numbers, code information and other data on cards, tags, labels, or tickets up to 5⅝" by 6⅝" is described. Markem Machine Co. **(C-288)**

MILITARY PACKAGING SUPPLIES. Price lists on various items necessary to military packaging, such as humidity indicators, waterproof case-liner adhesive, pressure sensitive tapes, barrier materials, etc. Packaging Division, E. W. Twitchell, Inc. **(C-289)**

SARAN-COATED PAPER. Magazine reprint explains the preparation and advantages of Saran-coated Kraft paper which exhibits superior water-vapor and gas impedance and excellent solvent and grease resistance. H. P. Smith Paper Co. **(C-290)**

CANNING ADHESIVES. Hot pickup gums, lap end pastes, case sealing adhesives, and glues for labeling difficult surfaces are described. Swift and Co. **(C-291)**

POLYETHYLENE BAG MACHINE. Description of the size range, production and other features of the Roto Model PO-2 machine for making polyethylene bags from both tubing and sheeting. Roto Bag Machine Corp. **(C-292)**

COATING MACHINES. Bulletin on Potdevin Type 2 R coating machines for labor-saving application of coatings of glue, latex, varnish, resins, and thermoplastics. Potdevin Machine Co. **(C-293)**

STORING AND USING CELLOPHANE. Suggestions for proper care in the storage and use of Sylvania cellophane, which is moisture sensitive and therefore affected by climatic changes. Sylvania Division, American Viscose Corp. **(C-294)**

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get attention—
increase sales

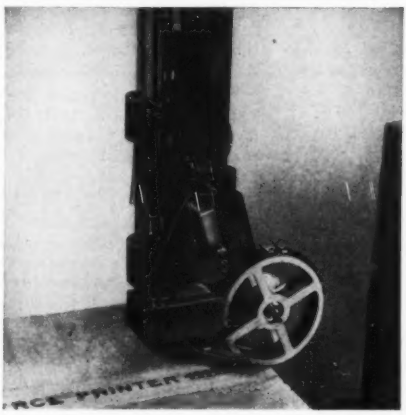
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Over 75 years of good packaging ideas

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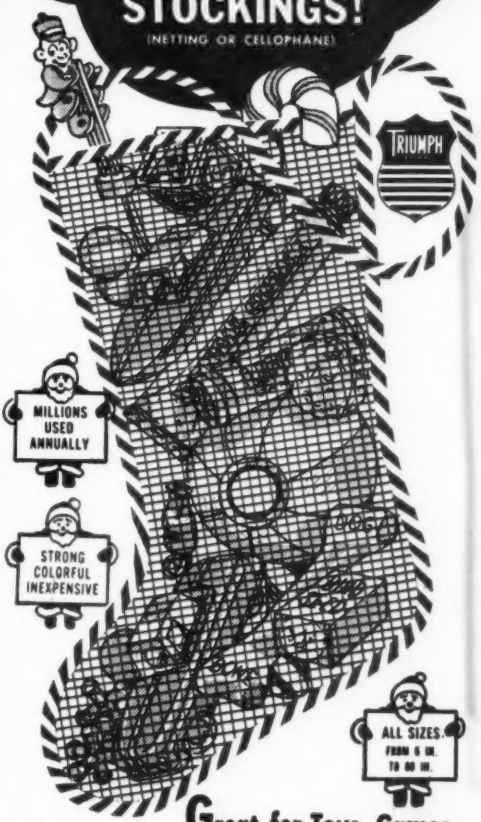
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Automatic, friction driven Printer for continuous printing. Deep rubber type face for rough surfaces. Adapted for printing on brake lining, hose, lumber, etc. Other marking devices using steel stamps and rubber plates.

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Package Your Holiday Surprizes in XMAS STOCKINGS!
(NETTING OR CELLOPHANE)



Great for Toys, Games Candy, Gum, Cookies, Pet Foods, Cosmetics, Toilet Articles . . .

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"Triumph Brand" Stockings dress-up and cleverly package Christmas offerings—stimulate sales for off-season items. Most effective as a promotional and merchandising medium. Available in net, cellophane or cloth. Get the complete details. Inquiries invited! Write today!

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112-14 PRINCE ST. NEW YORK 12, N. Y.
MILLS SINCE 1860
125 W. HUBBARD ST. CHICAGO 10, ILL.



(*This listing continued from page 400*)
Sperry Letterpress, Sperry Roto, Sperry Butt Splicer machines. *Personnel:* P. E. Fischer, T. Von Thien, J. S. Harvey, D. Annett, L. E. Hess, E. H. Gould. *Hotel:* Shelburne.

STANDARD CAP & SEAL CORP. *Booths 1019, 1021.* Demonstration of the Flex-Vac machine and of a wide range of specially developed laminations of films, foils and papers in roll and bag form, printed and plain. *Personnel:* H. T. Holbrook, W. W. Roberts, E. L. Domans, H. Belfi, R. A. Mahaffy, W. W. Yocum, J. G. Rote. *Hotel:* Ritz-Carlton.

STANDARD-KNAPP, *Booth 545. Personnel:* G. Inham, E. H. Schmitz, K. Holstebro, G. K. McPherson, A. J. Hetzel, M. McFaull, G. P. Schaefer, W. A. Schilling, R. H. Johnson, A. L. Johnson, F. P. Lonsdale, L. F. Shattuck, A. L. Mix, G. E. Bayer, D. G. Kobick, W. T. Hughes, T. C. Fenton, W. H. Jaenicke. *Hotel:* Haddon Hall.

STANFORD ENGINEERING CO. *Booths 769, 771 & 773.* Display of web guide automatic tensioner operated in conjunction with slitting machines. *Personnel:* W. T. Stanford, W. E. Wagoner, R. D. Quick. *Hotel:* Ambassador.

STEIN, HALL & CO., INC. *Booth 149.* Display of articles which have been sealed or manufactured with Stein, Hall's complete line of vegetable, resin and animal-based adhesives. Technicians will be available to discuss any adhesive problems. *Personnel:* Shoals, Kaplan, Gercke, Stettner, Lipman, Clapp. *Hotel:* Ritz-Carlton.

STOKES & SMITH CO. *Booth 524.* Display of Stokeswrap automatic packaging machine, Banks labeling machine, S & S Stokesfeed paper-box unit; display of packages and containers handled on Stokes & Smith equipment. *Personnel:* W. R. Huguenin, C. E. Schaeffer, S. T. Brinton, S. E. Child, C. H. Nitsch, J. Y. Albertson, W. E. Buswell, J. R. Manning, L. G. Smith, M. P. Sullivan, Jr., E. W. Bleam, H. Edgerton. *Hotel:* Dennis.

SUN CHEMICAL CORP. *Booth 240.* Theme of printing ink display, sponsored by the graphic arts divisions, will be "In Packaging, It's The Ink You See!" Exhibit of bags, boxes, containers and wrappers, demonstrating all types of ink printed on paper, board, foil, burlap, transparent films and metal. Display of closure liner materials and polyethylene film manufactured by the company's Electro-Technical Products Division. *Personnel:* J. F. Devine, T. Rosevelt, E. G. Schreibeis, M. Annick, M. J. Hoover, M. Winkler, W. Voelker, J. S. Massarene, Miss H. B. Stout. *Hotel:* Shelburne.

SUTHERLAND PAPER CO. *Booth 575.* Demonstration of complete packaging line of Kliklok carton former; new-type carton designs, single and multi-color. *Personnel:* G. Dilno, J. Stevens, F. Markle, C. Rice, D. Stenger, R. Paxton, L. J. Moore, R. Kasson, M. Galbraith. *Hotel:* Claridge.

SYLVANIA CELLOPHANE, *Booth 306.* Packages wrapped in Sylvania cellophane showing diversity of the product in the many industries that it covers. *Personnel:* J. W. Little, H. A. Newman, Jr., J. A. Anglada, J. D. Conti, Dr. R. T. K. Cornwell, J. C. Davis, E. M. Farris, H. H. Hamburg, A. J. Horgan, J. G. Mohlman, R. E. Reynolds, R. E. Sexton, T. O. Williams, J. Adrian, J. J. Baughman, W. J. Butler, H. W. Dearborn, T. H. Derby, J. A. Douglass, D. H. Gilson, A. R. Hitchings, Jr., A. W. Longworth, W. F. McCabe, F. A. Morris, L. Morris, E. C. Persike, V. D. Shaffer, F. W. Spannagel, E. V. Weston, V. N. Winkler. *Hotel:* Ritz-Carlton.

TRANSPARENT WRAP MACHINE CORP. *Booth 745.* Display of three machines: Model "C" Transwrap for the packaging of dried fruits in Pliofilm; semi-automatic auger filler for filling bags, cans and boxes; semi-automatic net weight scale for filling bags, cans and boxes. *Personnel:* W. R. Zwoyer, H. E. Knoechel, E. F. Prodigo, J. M. O'Brien, J. A. Wood, E. Cavanaugh, E. J. Griffin, D. Larson, A. Henkel. *Hotel:* Dennis.

TRIANGLE PACKAGE MACHINERY CO. *Booths 624, 626.* "Visco-Mat"; Elec-Tri-Pak weigher with a semi-automatic top and bottom carton sealer; automatic high-speed, semi-liquid food filler designed for handling paper containers. *Personnel:* L. R. Muskat, P. Muskat, Fred Ullman, W. P. Muskat, R. S. Schrader, C. R. Strehlau, R. L. Muskat. *Hotel:* Dennis.

TRI-STATE PLASTIC MOLDING CO. *Booth 1012.* Large selection of rigid plastic, reusable stock containers. *Personnel:* H. Sack, R. Julius, G. Kelly, *Hotel:* Ambassador.

TWOMBLY, C. E., CO. *Booth 734.* Display of pan liners, baking cups, packaged goods. Fifty-two different paper products for bakers, confectioners and other industries. *Personnel:* G. F. Twombly, W. E. Smith, W. Cramer III, H. Wischusen. *Hotel:* Shelburne.

UNION BAG & PAPER CORP. *Booth 351.* Exhibited under headline "Champions All" will be four champion purebred dogs in cages, in front of which they will perform obedience tricks daily on a raised platform. On either side of the cages will be large illuminated revolving turntables displaying products of the company's Flexible, Multiwall and Corrugated Departments. Above each turntable a sign will cite the particular type of bags displayed as the "Choice of Champions." *Personnel:* J. P. Duffy, F. H. Meendsen, E. M. Rickel, R. C. Chandler, S. K.

Bradley, J. D. Johnston. *Hotels:* Claridge, Shelburne, Ambassador.

UNION PASTE CO. (and F. G. Findley Co.), *Booth 870.* Glu-Weld water-resistant adhesives meeting Government specifications; Box-Weld case-sealing adhesives; Pick-Ets, patented pick-up gum pellets and new Pour n' Use ready-to-use adhesives. Space for technical conferences. *Personnel:* (Union Paste) A. B. Crowell, M. M. Bump, R. K. Crowell, G. L. Snow, N. Kosak, R. C. Brink, A. G. Rich, R. C. Valcovic; (Findley) R. Findley, J. R. Lyon, D. Thom. *Hotel:* Shelburne.

UPRESSIT PRODUCTS CORP. *Booth 1010.* Upressit closures, visible tamper-proof bands and various spouts. Pictures and information on fully and semi-automatic capping and sealing machines. *Personnel:* J. B. Taylor, T. Shields, D. J. Maguire, E. T. Horsey, Jr. *Hotel:* Claridge.

U. S. AUTOMATIC BOX MACHINERY CO., INC. *Booth 339.* Automatic packaging machine in operation. *Personnel:* O. W. Wikstrom, O. W. Wikstrom, Jr., A. C. Wikstrom, C. Fasch, J. Fradenburgh, O. E. Cote, G. H. Nilsen, O. L. Weidmann, C. Fago. *Hotel:* Dennis.

U. S. ENGINEERING CO. *Booths 730, 732.* Operation of Count-O-Matic "A" machine, packaging pharmaceutical tablets; Count-O-Matic "E" machine, packaging screws, and a new and improved design of conveyor for positioning empty containers and removing the filled ones. *Personnel:* B. R. Garrett, J. Budig, J. E. Hunnicutt.

U. S. PRINTING & LITHOGRAPH CO. *Booth 275.* Display of Eye-O-Matic packaging and advertising materials. A complete line of color-printed and lithographed products will be shown. *Personnel:* W. H. Walters, J. Lambie, B. Fertig, A. S. Nusbaum, G. Baker, B. F. Cake, J. S. Bond, G. Murphy, K. E. Oelke, E. H. Russell, H. C. Minnich. *Hotel:* Haddon Hall.

VANANT PRODUCTS, *Booth 1245.* Military specification packaging materials, greaseproof, water-vaporproof barriers and waterproof case liners. *Personnel:* P. van Antwerpen, C. K. Royce, G. E. Meyer. *Hotel:* Ritz-Carlton.

VERTROD CORP. *Booth 766.* Thermal-impulse heat Sealing machines in sizes from 9 in. to 42 in. *Personnel:* A. Fener, S. Fener. *Hotel:* Ambassador.

VISKING CORP. *Booths 975, 1074.* Uses of Visqueen polyethylene film for produce, hardware, soft goods, frozen foods, liners and many miscellaneous products. *Personnel:* E. B. Cahn, J. F. Bernard, H. B. Harris, D. W. Carlson, J. Kaltman, S. S. Susser, H. C. Byrne, Jr., J. F. Biehl, J. P. Shannon, J. H. Morrison. *Hotel:* Ambassador.

WALTON LABORATORIES, INC. *Booths 860, 864.* Display of complete line of humidification equipment for overcoming excessively dry air which causes paper to crack and ink to dry improperly. Also a line of humidity indicating and control equipment. *Personnel:* W. Feldermann, J. B. Feldermann, B. W. Dickson, J. R. Lewis. *Hotel:* Shelburne.

WAXED PAPER INSTITUTE, INC. *Booths 735, 737.* Comprehensive display of waxed-paper packaging of various food products; display of case histories of successful national food advertising campaigns built around the features of waxed paper packaging. *Personnel:* A. H. Noelke, C. E. Rogers. *Hotel:* Chalfonte-Haddon Hall.

WEBER ADDRESSING MACHINE CO. *Booth 1117.* Line of tag and label addressing and marking machines and devices. First showing of Tag-O-Graph Model KC and KC-E for automatic marking and addressing of labels from rolls of plain gummed or ungummed stock. *Personnel:* J. Weber, C. E. Ritter, J. D. Hawkins. *Hotel:* Claridge.

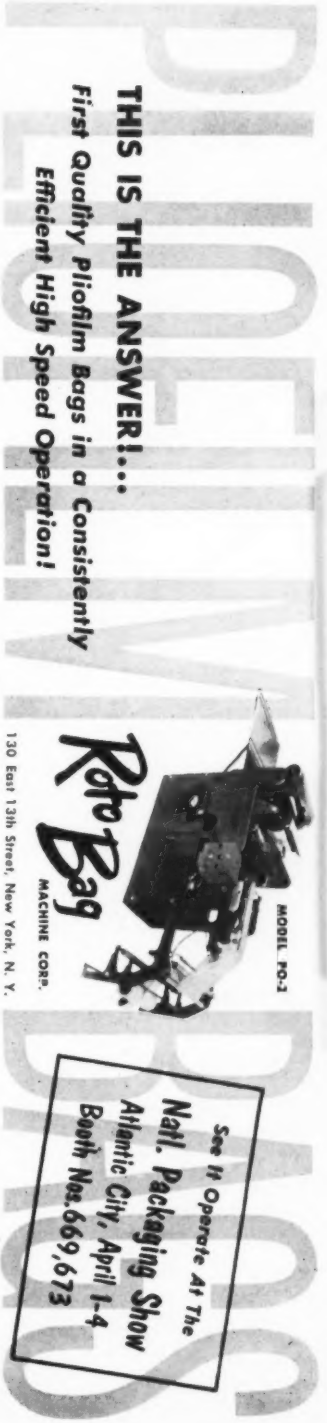
WEIGH RIGHT AUTOMATIC SCALE CO. *Booths 859, 861.* Packaging machinery including the new Model J volumetric filler for dry products; automatic Pak King fillers; net weighing equipment and working midget model of the Model B with FL scale weigher. *Personnel:* N. B. Almberg, L. Palmer, C. A. Almberg. *Hotel:* Traymore.

WOLVERINE PAPER CONVERTING MACHINERY CORP. (and Nasko Machinery Corp.) *Booth 103.* Photographs and other displays of Wolverine and Nasko machinery. *Personnel:* R. W. Nagel, H. Nagel. *Hotel:* Ambassador.

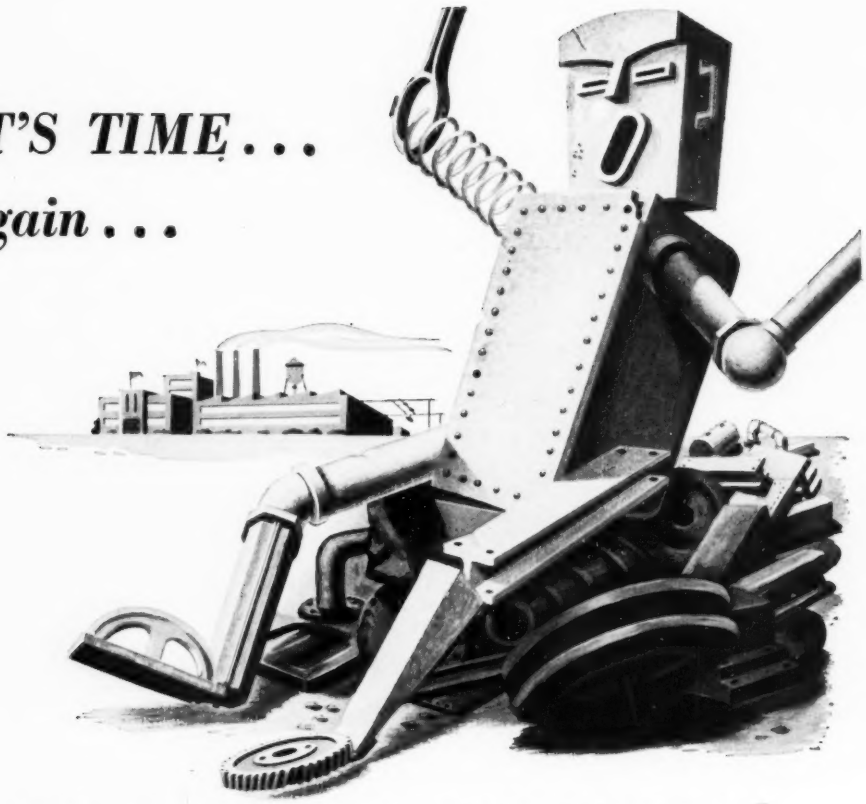
WRAP-ADE MACHINE CO., INC. *Booth 273.* Display of Wrap-Ade unit-packaging machine which can be used for automatic high-speed packaging of tablets, small hardware items, candy, free-flowing powders and many other items that are usually put up in heat-sealing packets; also new models of bag-sealing equipment. *Personnel:* A. M. Powell, Jr. *Hotel:* Dennis.

WRIGHT MACHINERY CO. *Booths 239, 241.* Model H Hy-Tra-Lec weigher, capable of packaging free-flowing and semi-free-flowing objects in bags at high speeds while maintaining a high degree of accuracy. *Personnel:* G. M. Spicer, H. L. Garrard, G. J. Taylor, J. B. Mahoney, I. P. Ritschel. *Hotel:* Shelburne.

YALE & TOWNE MFG. CO. *Booth 875.* Display of a Yale gas truck, an electric truck, a Worksaver, and a hand truck. There will be a live demonstration of how to stack packaged loads with or without pallets, showing the latest innovations in expendable pallets, glued loads, etc.



IT'S TIME . . . again . . .



TO WAKE UP SCRAPPY!

Scrap's getting scarce again . . . compared to the amounts we need . . . and it's up to *all* of us to *help* produce enough steel.

107,000,000 tons of steel is the present rate of production in 1951 . . . 119,500,000 tons is expected in 1952.

Last year, 1950, we produced 97,800,000 tons.

All that extra steel—enough to take care of *both* military and civilian needs—calls for *more scrap iron and steel.*

Scrap Inventories Are Alarmingly Low

While steel mills are producing at a greater rate than ever, scrap inventories have dwindled. Many mills are operating on a hand-to-mouth basis with shut-downs threatened unless we furnish more scrap.

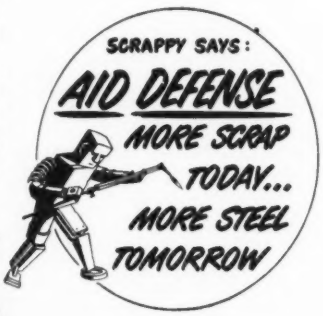
We *do* have the scrap. It's everywhere, not just in the form of *production* scrap—the "leavings" of machining, normally turned over to scrap dealers . . . but also in the form of *idle* metal: obsolete machines and tools, no-longer-usable jigs and fixtures, gears, chains, pulleys, valves, pipe, abandoned steel structures, etc.

We must have this *idle* metal to keep the furnaces running.

Please cooperate. Set up a Scrap Salvage Program in your plant—*now.* For a complete plan on "how to do it", write for booklet "Top Management: Your Program for Emergency Scrap Recovery". Address Advertising Council, 25 W. 45 Street, New York 19, N. Y.

Why Do We Need *Scrap?*

Steel is made half from pig iron, half from scrap. With production on the increase, more scrap must be purchased. And it's up to you to "dig it out" and sell it.



NON-FERROUS SCRAP IS NEEDED, TOO!

This advertisement is a contribution, in the national interest, by

MODERN PACKAGING

A PUBLIC SERVICE PROJECT · THE ADVERTISING COUNCIL ·

Barrier Material Packaging

For greater efficiency and profitable handling of U.S. Government Contracts use AMSCO Packaging Equipment

Years of experience in the design and manufacture of bag sealing equipment for all type of packaging materials has established Amsco as the foremost producer of this type packaging machinery. During World War II, Amsco, pioneered in the development of dependable, diversified barrier packaging equipment.

Today, companies with U. S. Government contracts requiring Method IA-3, IA-8, IA-9, IIa, IIb or IIc type packaging in flexible moisture-vapor-proof barrier material, use more Amsco equipment than any other make. In addition to equipment for fabricating, handling and sealing barrier materials, Amsco also can supply equipment for packaging in Polyethylene, Cellophane or Pliofilm, as may be specied in U. S. Gov't. contracts.



Visit our Booths Nos. 325-333 at the National Packaging Exposition.

Use Packaging Equipment
SPECIALLY DESIGNED
to fabricate, handle and seal barrier materials.

Amsco **AMSCO PACKAGING MACHINERY, INC.**
31-31 48th Avenue • Long Island City 1, N. Y.
Specialists In Diversified Packaging Equipment

Send for your copy of AMSCO's Book, "Barrier Type Packaging for U. S. Government Orders." Available at no charge. Write Dept. MP-3

British report on U. S. packaging

A productivity team representing the British packet foods industry has recently completed and published a report* of its visit to the U. S. in 1951. In all, some 20 companies in the food-manufacturing business or supplying the food-manufacturing business were visited and a study was made of approximately 30 different types of food processing and packaging.

Preliminary to the start of the tour it was pointed out to the British team that one-fourth of the American income is spent on food and the industry employs one-fourth of the American workers. The produce of some 6,000,000 farms and fisheries, as well as a large amount of imported foods, is processed by 40,000 manufacturers and graders of food. Through 5,000 to 10,000 distributors, these products go to 400,000 to 500,000 retail stores and an equal number of restaurants, and thence to the consumer, who eats approximately a ton of food a year, or nearly 5½ lbs. a day.

In regard to packages and packaging materials, the British team reports that the American food manufacturer insists on a much higher level of quality and performance than the British do. The team was impressed by the practice of some of our larger and more progressive firms that specialize in the testing and development of papers and carton boards and liner materials.

The team is of the opinion that American manufacturers of flexible packing materials have given food manufacturers a very wide choice of materials combining the three main essentials—protection, strength with pliability and good appearance. "Manufacturers of food-packaging machinery," the report adds, "have kept pace and many striking designs of high-speed packing lines have resulted. Lowered production costs and increased shelf life of products have also resulted from the use of new materials. This is a matter of great importance and appears to merit much closer attention in this country (the UK) than it has so far received."

The British team was impressed by the procedure used by one cereal packer whose cartons are made from board in the reel and whose labels are printed in-plant. The report stresses the fact that most manufacturers, however, prefer to buy their cartons and labels from specialist firms.

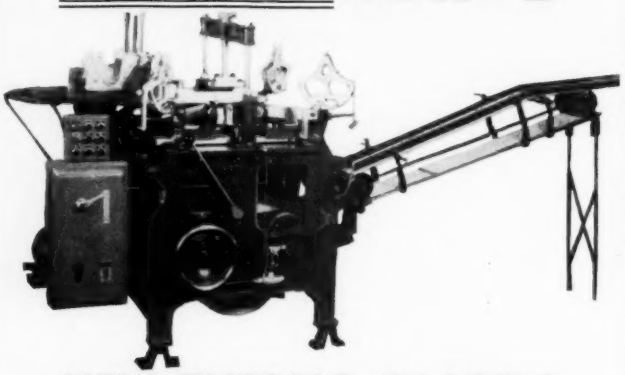
The team noted that carton-printing machines of the Cambon or Thrissel type, such as are used in England, are not used in the U.S., but that machines which take the carton in the flat and line it with glassine paper taken from the reel are quite common.

One of the practices mentioned in regard to materials handling was the use of portable conveyors with a cantilevered delivery extension which can be inserted into a rail boxcar for loading into the extreme end.

In regard to package weight control, the British team notes an apparent gap in statistical analysis. "Federal, state and city laws," the report states, "require food packages to bear a true statement of their net weight, and all factories visited have some system for checking their package weights. At nearly all, this is regarded primarily

* "Productivity Team Report on Packet Foods," Anglo-American Council on Productivity. U. S. Section, 2 Park Ave., New York. U. K. Section, 21 Tothill St., London, S. W. 1.

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as a laboratory responsibility. It was surprising, however, that at only five factories (among those visited) are the data analyzed statistically to provide a guide to the performance of the filling machines; without such an analysis the information gathered at considerable effort and cost is valueless. . . . At one factory not included in the above five, routine check-weighing has been replaced by the incorporation in each production line of an electrically operated device that automatically segregates both light and heavy packages, and mechanisms are activated which automatically make the necessary adjustments to the filling machines to bring the package weights once again within desired limits. These machines are said to have enabled six laboratory assistants to be transferred to more productive work."

Glued-joint shippers

(*This article continued from page 246*)

Among the present users of containers with glued joints are Maxwell House Coffee, Campbell's Soups, June Dairy products and certain Armour products, to mention only a few. The containers are said to be growing in popularity for use in the canning and dairy fields. One packer is shipping prints of butter in glued-joint containers. In this instance, it is specified that the flap be joined on the outside so that it will not cause indentations in the butter.

Currently, attempts are being made to crush the glued joint partially to make the boxes as flat as possible and permit them to be bundled more advantageously for handling and storage.

Outlook

Opinions expressed in the field regarding the glued joint range from all-out enthusiasm to serious interest mixed with mild notes of caution. One manufacturer of box-making equipment states: "Radical changes such as this do not happen over night. There will be a few pioneers to blaze the trail and then the rest of the industry, feeling the pressure, will follow suit."

Another source reports that the glued-lap joint is rapidly becoming more popular, since tests to date, at least in the domestic field, indicate the glued joint is as substantial as the other types of joints.

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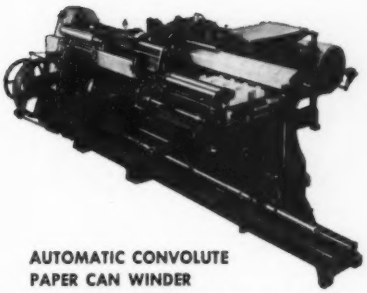
WOUND CANS TUBES CORES



Material shortages, high cost of procurement and production have led many manufacturers to ask Knowlton for advice in solving their present-day container problems. In many instances paper wound cans and spiral wound tubes used for containers or cores have permanently replaced previously used materials because they are not only better adapted but cost less to produce.

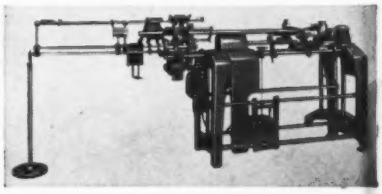
Knowlton machines shown produce tubes, cans and cores that are strong and can be made weather, odor, moisture and vermin resistant. Products in process or in transit are preserved and protected.

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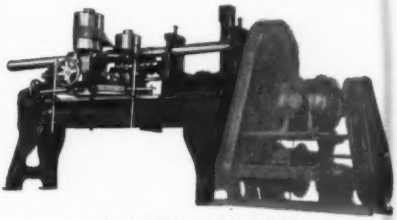


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More pan-packages

(*This article continued from page 237*)

its consumer appeal. Some bakeries, for example, use as many as 20 different sizes for their brown-and-serve items and the cost of making dies to manufacture each tray size is generally found prohibitive when considered in relation to the volume sold.

Although production of these aluminum foil containers is subject to defense restrictions along with all other uses of aluminum, they are presently available in limited supply. And in the long run, because the containers offer a means of reducing production costs and solving labor problems in the baking field, as well as delivering fresher, more convenient to use products to the consumer, the future of the foil containers is bright.

CREDITS: *All packages illustrated use Reynolds Metals Co.'s. aluminum foil.* ***Sara Lee containers****—Brownie and butter Danish trays, American Pan Division, American Tool Works Co., Cincinnati; foil-glassine date and nut tray, General Fiber Products Co., Maspeth, N. Y.; Reynolds Pak butter pound cake container, Reynolds Metals Co., Louisville, Ky.; paper labels, Arjay Graphic Service, New York; paperboard sleeves, Robert Gair Co., Inc., New York; cellophane, Du Pont.* ***Walter Freund*** *roll tray, Aluminum Foil Packaging Co., Burlington, Iowa.* ***Ortman's*** *angel food cake, Reynolds Pak.*

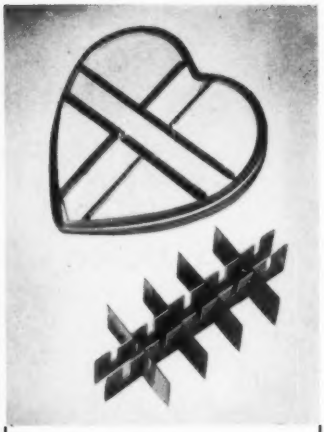
Fresher chips

(*This article continued from page 215*)

construction with cellophane outside and glassine inside. An explanatory message, ". . . this bag may contain a package of only activated carbon and silica gel to help maintain crispness and flavor," is printed on the back of each bag.

Demand for the packets filled with activated carbon and silica gel was so great that Gordon Foods has undertaken the manufacture and sale of them to other packers of food products under the trade name, "Magic-Pak." They are produced and filled automatically on equipment which the company reports was specially designed for them.

CREDITS: *Printed packet glassine, Daniels Mfg. Co., Rhinelander, Wis. Printed cellophane for packets and potato-chip bags, Milprint, Inc., Milwaukee, Wis. Potato-chip bag-making machine, Simplex Packaging Machinery, Inc., Oakland, Calif.*



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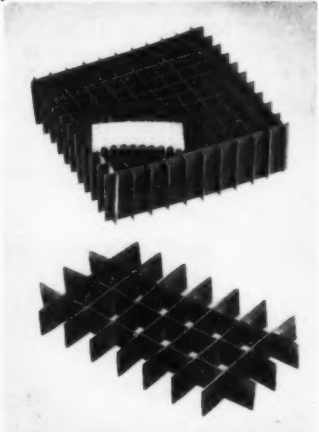
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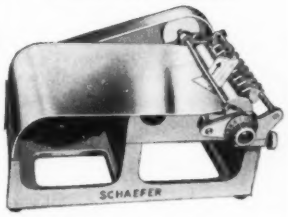
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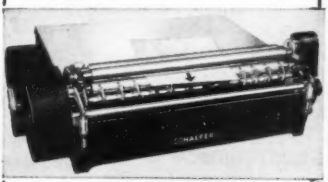


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Western Show

Advance interest evidenced in the 4th Western Packaging and Materials Handling Exposition indicates the Western packaging show will exceed preliminary expectations. The exposition will be held in the Los Angeles Shrine Convention Hall, Aug. 12 to 14 this year.

Mayor Fletcher Bowron of Los Angeles has issued an official invitation to members of the nation's packaging and materials-handling industries. The exposition has not previously been held in Los Angeles and Mayor Bowron and Roy M. Hagen, first vice president of the L. A. Chamber of Commerce, are organizing a special committee to coordinate the area's industrial participation.

More than 7,000 executives from Far West industries are expected to inspect the new machines and materials to be shown, as well as the unique advances in packaging contributed as a result of the area's very wide product diversity and rapid industrial expansion.

According to the exposition management firm, Clapp and Polliak, Inc., New York—directors of the exposition—exhibit space is still available, although reservations are being made at a faster pace than previously.

Cellophane off ration

Allocation of cellophane has been suspended by the Du Pont Co. and the firm announces it is in a position to accept additional orders for the packaging film.

According to J. E. Dean, director of sales of the company's film department, steps taken to reduce the sulphur consumption in cellophane production appear promising. It is further believed the effect of NPA's amended Sulphur Order M-69, which restricts the use of elemental sulphur, will not have as serious an effect on Du Pont cellophane production as was first anticipated. As a result of this, the company's production is now sufficient to justify the ending of allocations, though no prophecy as to how long the situation will last can be made. The company began allocating cellophane in 1942 to provide a fair distribution of the available supply among its customers and except for a few months during 1949, voluntary rationing has been in effect continuously for 10 years.



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Container supply good

A reduction in container demand, except for a few plastic items now in short supply and a current purchasing policy of buying on a hand-to-mouth basis, has resulted in some softening of container prices and in a lowering of finished inventories, according to a report on packaging market conditions in early 1952, issued recently by the National Assn. of Purchasing Agents.

The association's containers committee finds that, "Generally, the mobilization program has had very little effect in creating shortage of packaging supplies. Ample unused production capacity now exists to meet any unusual demand."

In regard to paper containers, the solid fibreboard and corrugated boxes are reported "ample" and "a buyers' market exists"; the supply of kraft for bags is "adequate"; paper drums, cans and tubes "present no current procurement difficulty" and for paper cartons "the demand continues low." It was also found that multiwall construction continues to increase because of its substitution for higher-priced textile bags. A growing interest and use of paper bags with moisture-barrier plastic laminations was reported.

Plastic container supply was reported good for all types except cellophane and polyethylene. "The outlook for ample supplies of transparent sheeting continues bright," was the comment, although purchasing agents were advised that their "known requirements be purchased in advance with proper lead time for delivery" for all plastic containers and materials.

The NAPA report was optimistic about metal containers with two big "ifs"—the effect of steel wage settlement on prices and supply, and the fact that a surge of demand would again require forward buying.

There was no appreciable shift from metal containers to the use of glass reported and the committee expressed its feeling that the glass container industry will have to take advantage of every conceivable economy to hold current sales and profit positions if the demand in consumer goods continues to decline.

The comment on wood containers was that the current outlook is for a "reasonably" good supply going into the second quarter of the year at "firm to declining prices."

As to textile bags, the report said

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. . . good planning holds down costs. McCormick & Co. introduced their new Cinnamon Sugar in an inexpensive shipping carton equipped with this attractive, full color back panel. Additional cards, identical in theme but sized to fit the big McCormick floor stands already in the stores, are also supplied. Result: the small unit gets this new item on bread counters. The bigger back panels get it additional display in the floor stands. This is but one of many successful double-duty display ideas . . .

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that "burlap will find resistance to buyers' acceptance for many uses, without further price reduction. Burlap bags, with or without paper liners, are readily available for prompt delivery at a 10% increase in cost as compared with 30 days ago. Further declines are now expected and supply looks better." On cotton bags, it was said that purchasing agents are not taking much of a forward-buying position, although one buyer queried indicated a belief of "upward leaning" in future prices.

Increased paper use

A bright future is pictured for the paper industry, according to D. C. Everest, president of the Marathon Corp., and one of the significant reasons for this optimism is because the food industry has turned to automatic packaging.

Mr. Everest's remarks were made at the recently held 75th anniversary meeting of the American Paper & Pulp Assn. at the Waldorf-Astoria Hotel, New York.

"The security of the packaging industry," he said, "lies in the fact that with labor costs as they are today, automatic packaging is economic. The distribution of food through self-serve supermarkets is economic; therefore that system of distribution is assured until some smart merchandiser, coupled with a good engineer, comes along and designs a 'super-duper' supermarket.

"Regardless of what the distributors of food or any other product do in the way of improving methods of distribution," he added, "the tendency is to use more and more paper and paperboard.

"Incidentally, the tendency is toward smaller packages, which means the use of more paper and paperboard. Most people are living with a limited number of cubic feet of refrigeration space. Space is, therefore, valuable. Round cans and bottles or any other type of packaging that takes up space in excess of that occupied by rectangular packages are passe."

Mr. Everest's prediction for the whole paper industry was optimistic. Although there are some people who worry about over-expansion of the industry, he doubts whether the industry will have in actual operation new plants and facilities to meet the peak load of production required during the year.

NEW

Carded merchandise now in Rigid Transparent Packaging



Shaw-Randall has developed a brand new method of providing rigid transparent packaging for carded merchandise in single or multiple units. In the single card mount, the formed acetate is stapled to the card. The double card is closed and sealed to hold the acetate in position without stapling.

This packaging idea developed by Shaw-Randall primarily for syndicate store merchandising lends itself also to low cost packaging of better grade items. We will welcome the opportunity to suggest how your carded merchandise can be packaged by this new method.



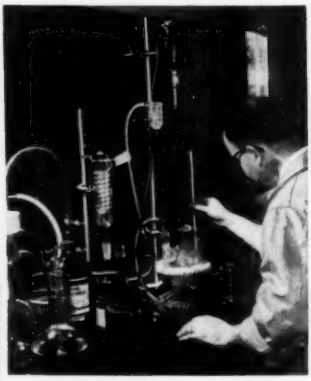
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Packaging film research

Advanced research and development laboratories have been set up by Olin Industries, Inc., to evolve new and improved cellophane and other packaging films.



NEW LABORATORIES for Olin's Research & Development Dept.

Edward Hartshorne, Olin scientist and administrative executive, has been named as the manager of the new department and Dr. Fred Olsen, research director, is the general supervisor. The new department is at the site of the Winchester Repeating Arms Co., a division of Olin Industries at New Haven, Conn.

The department will conduct explorations into new or improved films or film products, or materials leading to them, and will work for improvements in film durability, anchorage, appearance, heat seal, moistureproofness, printability and packaging-machine operating characteristics.

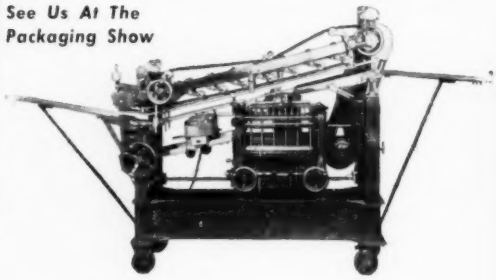
The laboratory's facilities are equipped to make actual tests of the suitability of film for packaging. For this purpose, the laboratory tools include rotary heat-sealing, bag-making, overwrap-packaging and carton-wrapping machines, a two-color letterpress printing machine, a two-color rotogravure press and a vibrating table.

Facilities also include wet chemical laboratories, controlled temperature and humidity laboratories, engineering, packaging and statistical laboratories and drafting rooms. Unique is a specially designed laboratory that controls relative humidity to within 1% and temperature to within three-tenths of a degree F. Operating temperatures as low as minus 50 deg. F. can also be provided.

Notable among the devices used—some only recently developed and several electronic-mechanical devices—are the Instron tester, an infra-red spectrophotometer, a clarity meter, an X-ray diffraction instrument, a fatigue tester, a Weissenberg camera, a weather-o-meter, a General Foods moisture-vapor cabinet and controlled-temperature and humidity storage ovens.

Olin Industries began producing cellophane last summer at the world's newest and most modern cellophane plant. The plant is at Pisgah Forest, N. C. In 1950, Olin acquired the Harwid Co., Cambridge, Mass., makers of polyethylene film. A nitrating and dissolving wood-pulp mill is currently being planned and recently the Frost Lumber Industries, Inc., was acquired to assure the company of a sufficient and continued source of supply of pulpwood.

See Us At The Packaging Show



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CRCO Model E Labeling Machines are rugged for heavy-duty continuous operation without time out for adjustment or repairs. They operate on cylindrical containers at high speed without stops to replenish label supply. Write for complete details and prices.

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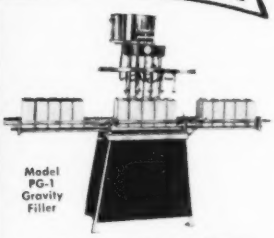
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Milk canning process

A process that makes it possible to put fresh, whole, sterile milk in sterile cans has been developed by Golden State Co., Ltd., major California dairy products firm. According to J. R. Little, Golden State president, the process, for which a patent has been applied, allows the canned milk to hold its quality and flavor for a period up to a year.

The new process is said to be no more expensive than the conventional processing and, in some instances, may be more economical. Potential benefits include the possibility of distributing the milk to areas of short supply all over the world; also for use by the armed forces, for camping trips, on planes and ships, and by other groups not having ready access to a supply of fresh milk. Another possibility is the distribution of milk in case lots to cut distribution costs and enable housewives to keep adequate supplies on hand.

While most of the canned milk will be packaged in quart cans, smaller cans that can be sold in vending machines like soda pop will also be produced. At present, only limited quantities are being produced in a pilot operation at the Golden State plant in Newman, Calif. Canned sterile cream and other fluid dairy products will be produced.

According to Golden State, the process for which the patent application has been made can utilize to advantage the aseptic canning equipment developed by the Dole Engineering Co.

In contrast to the conventional method of sterilizing a product in its can, Golden State employs a four-step operation:

1. "Flash" sterilization of the product at high temperatures for a short period.
2. Sterilization of empty cans and covers with superheated steam.
3. Filling the cooled sterile product into the sterile cans.
4. Sealing the filled containers with the sterile covers in an atmosphere of superheated steam under aseptic conditions.

Dr. A. P. Stewart, Golden State research director, reports the new process utilizes milk delivered to the manufacturing plant without requiring special and expensive handling. One of the major contributions of the process, he adds, is that the product is extremely stable during storage.



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BOOTH 425

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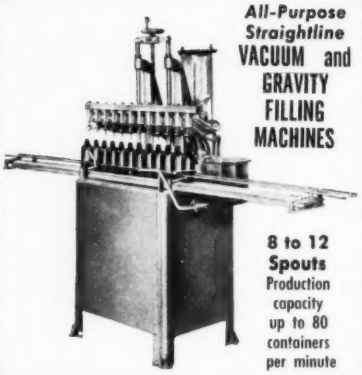
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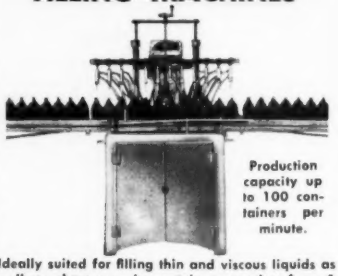
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Banding cartons for air freight

The use of filament tape for closing and reinforcing shipping cartons gives four times faster packaging and reduces customer air-freight charges nearly $700 a year, reports the Continental Consumer Co-Op Assn., Seattle. In addition, over-all unit labor and material costs have been trimmed more than $1,200 a year.

The tape—replacing previous banding methods—is used to close and reinforce air-freight cartons for shipment to some 40 retailers in communities throughout Alaska. Daily shipments of 200 cartons carry as much as 100,000 lbs. of fresh and frozen foods into the area each month.



According to Clif Goodman, president of Continental, it formerly took one man two minutes to reinforce a carton as compared to the taping method, which requires one-half minute a carton. This alone represents a 400% increase in production, he adds, and labor costs have been cut from 6 cents to 1½ cents a carton. The present taping method (see illustration) calls for two 2-ft. lengths of ¾-in.-wide filament tape. Tapes of this type are characterized by their strong tensile strength.* The tape is applied across the top of each carton (about 8 in. in from either end) and partially down the carton's sides. The tape's low weight is said to save up to $2.66 in freight charges on a 200 carton shipment.

CREDIT: *"Scotch" brand filament tape No. 880, Minnesota Mining & Mfg. Co., St. Paul, Minn.*

*See "Giant Jobs for Tapes," MODERN PACKAGING, July, 1951, p. 98.

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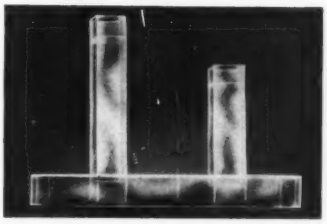
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USAF board

The Air Materiel Command at Wright-Patterson Air Force Base, Dayton, has announced activation of a planning board charged with taking the red tape out of packaging and materials handling functions of the Air Force's supply system. Called the Air Force Packaging and Materials Handling Board, the unit will maintain continuing study of all matters affecting the logistical support of the Air Force. The board will have two objectives: (1) to assure that the correct item, delivered to the right place at the right time, is in condition for immediate use; (2) to eliminate red tape in packaging, in preservation as well as in materials handling.

Involved are approximately one million different supply items. To package these, the Air Force buys more than $66 million worth of packaging material a year, not counting costs of packaging done by contractors.

The new board will be responsible to the Directorate of Supply and Services, Headquarters USAF, Washington, D. C. Offices, however, will be at Dayton. Col. Rudolph Fink, AMC's command packaging officer, is chairman. Lt. Col. John K. Mount, chief of the packaging section in the Directorate of Supply and Services, Headquarters USAF, is vice chairman. Maj. L. M. Young, assistant to AMC's command packaging officer, is executive secretary.

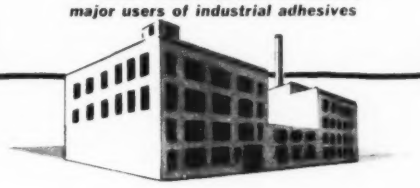
Two subcommittees have been appointed. One will work out a proposed organizational structure for centralized management for packaging, preservation and materials-handling activities. The other will study training and career-field needs for officers, airmen and civilian employees. A career field is being developed for inclusion within the present Air Force career-development program to assure a continuity of policy and operation.

A special group is developing detailed packaging instructions for every item of equipment. These instructions will appear in code form in Air Force supply catalogs and later a new manual for interpreting these codes will be made available.

Special emphasis is being placed on the packaging and handling methods for airlift. Also, an AMC packaging-cost and operational-analysis section will determine the cost and effectiveness of efforts toward the improvement of Air Force packaging.

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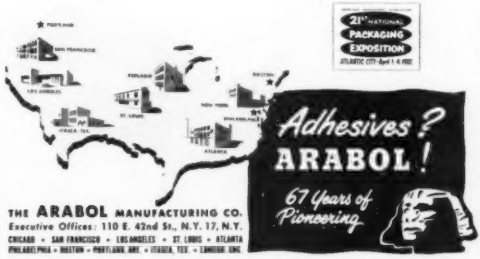
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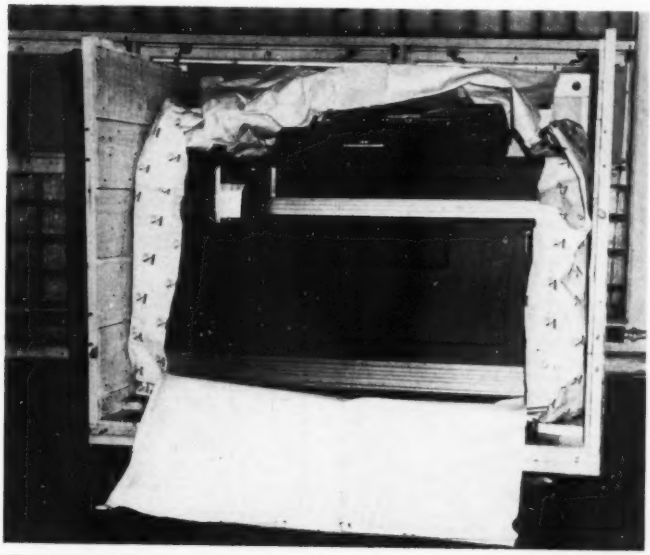
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More than $15,000 a year in packing costs plus thousands of manhours are being saved through the use of rust-inhibiting papers in packaging accounting and time-recording units (see illustration) at the Endicott, N. Y., plant of International Business Machines.



The wrappers—paper treated with a synthetic chemical that gives off long-term release of corrosion-preventing vapor*—was selected by IBM's research staff in 1949 for use as a protective shroud for machines and parts during domestic or export shipment. The wraps are also used during plant inter-operation storage. Prior to 1949, IBM lined its shipping cases with a vapor barrier and sealed them with a rubber cement, a procedure that, reportedly, was far more costly than the present method. In addition to the substantial savings achieved by using the anti-rust wrapper, further savings are made in manhours required to prepare each unit. Crating time for large accounting machines, for example, is reduced by 1 hr. on each of the 25 units shipped each day. Customers also save in labor costs, because the units arrive rust-free, clean and ready for use.

CREDIT: *Vapor wrappers, Nox-Rust Chemical Corp. Chicago.*

*See "VPI Goes to War," MODERN PACKAGING, July, 1951, p. 92.



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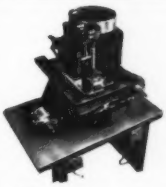
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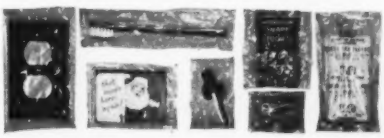
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1—Unscrambling Table Model 301, Serial #485, Make—Standard Knapp. Motor—Westinghouse, Style 1180039A, Serial-AP. ¾ HP, 3 PH, 60-50 Cycle, 220-440V, 1725-1425 RPM, Frame 186.
1—Filling Machine, Serial #BF 464; Make, International. 24 tubes. Motor—Diehl, Type D1-1200-1, 1½ HP, 3 PH, 60 Cycle, 220 V, 1725 RPM, Frame 204.
1—Case Sealer, Model D-8-2945B; Make, Packomatic. Motor—Westinghouse, Type FS1186-032A, ½ HP, 3 PH, 60-50 Cycle 220-440 V, 2547-2561 RPM, Frame 186.
1—Case Sealer Compression Unit. Model B-8-2945B, Make—Packomatic. Motor—Sterling #10098, ¾ HP, 3 PH, 60-50 Cycle, 220-440 V, 1690-1300 RPM, Frame K-191.
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(Continued on page 428)

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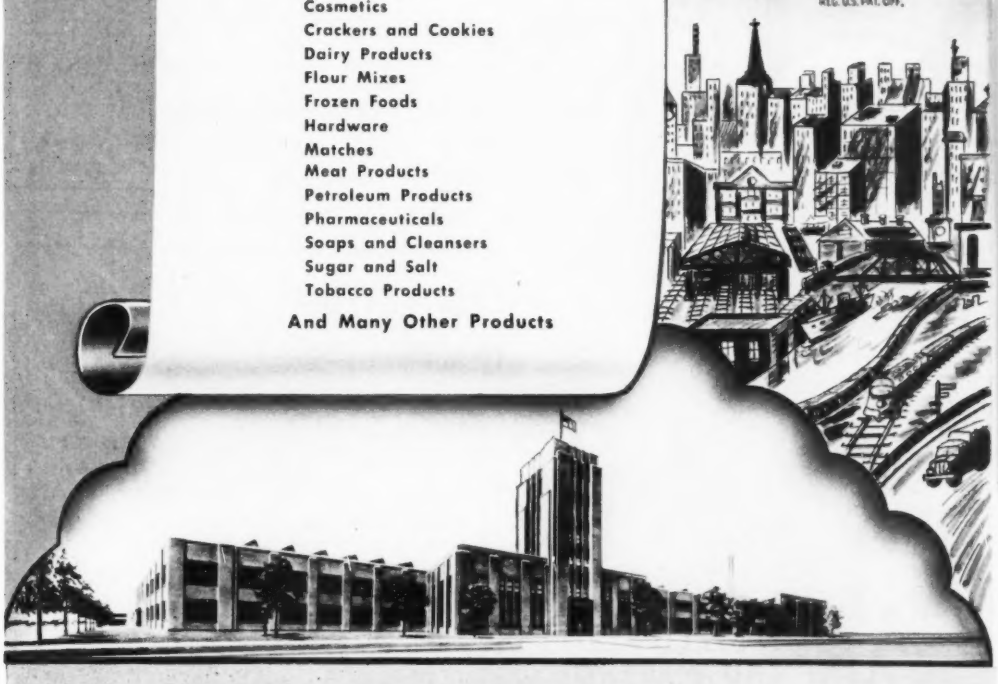
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CLASSIFIED ADVERTISING

(Continued from page 426)

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WANTED: Cameron Slitter, Packaging Line, Labeler, Capper, and Mixer. Box 300, Modern Packaging.

WANTED IMMEDIATELY: A 60 inch Cameron score cutting paper slitter of type 9.5 or type 6. Box 315, Modern Packaging.

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INDEX OF ADVERTISERS

MARCH, 1952

A. B. C. Packaging Machine Corp. 362
Acme Backing Corporation 15
Acme Gravure Services, Inc. 304
Allegheny Steelband Company .. 350
Alpine Plastic Bag Co. 378
Aluminum Company of America 50, 71
Aluminum Foils, Inc. 47
Aluminum Rolling Mills Limited 26
American Can Company 40
American Coating Mills 312
American Cyanamid Company, Plastics Department 329
American Excelsior Corporation . 348
American Tape Printer Co. 408
American Type Founders 171
American Viscose Corporation, Sylvania Division 41
Amsco Packaging Machinery, Inc. 407
Anderson Bros. Mfg. Co. 364
Andrews, P. L., Corp. 362
Angier Corporation 306
Arabol Manufacturing Co., The . 423
Arenco Machine Co., Inc. 170
Arkell & Smiths 424
Armstrong Cork Company, Glass & Closure Division 338
Arvey Corporation 324
Askania Regulator Company . 394
Atlantic Coffee Bag Co., Inc. ... 391
Atlas Plywood Corp. 347
Avery Adhesive Label Corp. ... 181

Bagley & Sewall Company, The 282
Bakelite Company, A Division of Union Carbide and Carbon Corporation. 67, 173
Bartelt Engineering Company .. 325
Battle Creek Bread Wrapping Machine Company 273
Beck, Charles, Machine Corp. .. 16
Beck Engraving Company, The . 342
Bemis Bro. Bag Company 295
Bensing Bros. and Deeney Sales Company 51
Berlex Carton Co., Inc. 10
Bernadin Bottle Cap Co., Inc. 75
Betner, Benj. C., Company 188
Biner-Ellison Machinery Company 418
Black-Clawson Co., The Dilts Machine Works Division 30
Borden Company, The 376
Brockton Manufacturing Co. ... 428
Brooks & Porter, Inc. 326
Brown Bag Filling Machine Co., Inc. 393
Brown Company 32
Buckeye Molding Company 56
Burlington Mills 24
Burt, F. N., Co., Inc. 247
Butterfield-Barry Co., Inc. 396

Cady, E. J., & Company 339
Cameo Die & Label Company .. 253
Catalin Corporation of America . 59
Celanese Corporation of America, Plastics Division 14
Celluplastic Corporation 97
Central States Paper & Bag Co. . 315
Champlain Company, Inc. 370
Chaspee Manufacturing Co., The 77
Chester Packaging Products Corp. 39
Chicago Carton Company 427
Chisholm-Ryder Company of Pa. 416
Claremont Waste Mfg. Company 310
Clark-Aiken Co., The 314
Classified 426, 428
Cleveland Container Co., The .. 78
Colton, Arthur, Company 319
Consolidated Lithographing Corp. 302, 393, 414
Consolidated Packaging Machinery Corp. 391
Container Equipment Corp. 354
Continental Can Company .. 292, 293
Counsel Machine Company, Inc. . 398
Crescent Ink & Color Co. 286
Crocker, H. S. Co., Inc. 349
Cromwell Paper Company 90
Cross Paper Products Corp. 281
Crown Can Company 92, 93
Crown Cork & Seal Company .. 64
Crown Cork Specialty Corp. 54
Crystal Tube Corp. 397
Culligan Zeolite Company 328
Curtis, S., and Son, Inc. 395

Dale, John, Limited 361
Davis, Joseph, Plastics Co. 311
Dennison Manufacturing Co. 177, 178
Diamond Straw & Machine Co. . 308
Dilts Machine Works, Division of The Black-Clawson Company . 30
Dobeckmun Company, The 5
Doughboy Industries, Inc. 96
Douglas, Charles E., & Co. Ltd. .. 352
Dow Chemical Company, The, Plastics Dept. 337
du Pont de Nemours, E. I. & Co. (Inc.), Acetate 344
du Pont de Nemours, E. I. & Co. (Inc.), Cellophane 265
du Pont de Nemours, E. I. & Co. (Inc.), Polychemicals Dept. .. 297
Durethene Corporation 72
Dusenbery, John, Co., Inc. 308

Eastman Kodak Company, Cellulose Products Division 309
Economic Machinery Company, Division of Geo. J. Meyer Manufacturing Co. 283
Edlaw Packaging Co., Inc., The . 428
Einson-Freeman Co., Inc. 332
Electrical Industries, Inc. 291
Electronic Machine Parts, Inc. 410, 411
Empire Box Corporation 431
Equitable Paper Bag Co., Inc. 175
Ever Ready Label Corp. 325
Exact Weight Scale Company, The 350
Extruders, Inc. 364

Fairest, Morgan, Ltd. 80, 81
Federal Adhesives Corp. 318
Federal Tool Corporation 52
Ferguson, J. L., Company 73
Fibleco Illinois Corporation 371
Fisher's Foils Limited 341
Foilcraft Printing Corporation .. 184
Forbes Lithograph Company ... 18
Forsman, C. H., Company .. 289, 290
Foxon Company, The 367
Frazier & Son 288
Freund, R., & Co. 304
Fry, George H., Company 400

Gair, Robert, Co., Inc. 1
Gardner Board & Carton Co., The 62, 63
Gaylord Container Corporation .. 20
General Plastics Corp. 390
General Printing Ink Company, Division of Sun Chemical Corp. 279
Gering Products Inc. 417
Gibralter Corrugated Paper Co. . 296
Gilman Brothers Co., The .. 380, 381
Globe Heat-Seal, Inc., Heat Seal-It Division 370
Goodrich, B. F., Chemical Company, The Geon Division 7
Goodyear Tire & Rubber Company, The, Chemical Division . 19
Goodyear Tire & Rubber Company, The, Pliofilm Dept. 222, 223
Gotham Ink & Color Co. 389
Gottscho, Adolph, Inc. 378
Gummed Industries Association, Inc., The 355
Gutman, Ferdinand, & Company 42

Hampton Manufacturing Co. ... 310
Harmon, Ira, Co. 388
Harris-Seybold Co. 268, 269
Hayssen Mfg. Company 252
Hazel-Atlas Glass Company 69
Heat Seal-It Division, Globe Heat-Seal, Inc. 370
Heekin Can Co., The 334
Heinrich, H. H., Company 68
Herbert Products Inc. 304
Hesser, Fr. 25
Hilker Products 422
Hinde & Dauch 299
Hofmann, Alfred, & Co. 179, 366
Holes, Floyd A., Co., The 301
Horix Manufacturing Co. 398
Howard Plastics 383
Howell, F. M. & Company 374
Hudson-Sharp Machine Co. 345

Imco Container Corp. 28, 29
Industrial Container Corp. .. 44, 45
Industrial Marking Equipment Co. 390
Industrial Packaging Co., Inc. .. 55

(Continued on page 432)



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INDEX OF ADVERTISERS

(Continued from page 430)

Inta-Roto Machine Co., Inc. 274
International Printing Ink, Division of Interchemical Corp. .. 65
International Staple & Machine Company 70
Island Equipment Corp. 325
Ivers-Lee Company 58

Jiffy Manufacturing Company .. 270
Johnston Foil Manufacturing Co. 61
Jones-Dabney Co., Inc. 6
Jones, R. A., & Co., Inc. 277

Kage Company 374
Kalamazoo Vegetable Parchment Company 392
Keiding Paper Products Company 370
Kilb, Francis C., Co. 421
Kimberly-Clark Corporation 333
Kimble Glass Division, Owens-Illinois Glass Company 331
King, Charles E., & Co. 383
Kingsburg & Davis Machine Co., 408
Knowlton, M. D., Co. 409
Krause, Fred. A., Associates 316

Lachman-Novasel Paper Corp. .. 9
Lowe Paper Company 76
Lusteroid Container Co., Inc. .. 340
Lynch Corporation 91

MRM Company, Inc. 420
Machinery Mfg. Co., Inc. 280
Mack Molding Co., Inc. 419
Manhasset Machine Company .. 383
Manufacturers' Literature .. 401, 402
Marathon Corporation 95
Marconetti, A. E., Inc. 74
Mardon, Son & Hall Ltd. 168
Markem Machine Company 423
Maryland Glass Corporation 167
Matthews, Jas. H., & Co. 310
McKay-Davis Chemical Corp. ... 36
McLaurin-Jones Company 346
Mead Board Sales Inc. 53
Mehl Manufacturing Company .. 249
Michigan Carton Co. Inside Back Cover
Middlesex Paper Tube Co., Inc. . 379
Miller, Walter P., Co., Inc. 46
Miller Wrapping & Sealing Machine Co. 419
Mills, Elmer E., Corporation 17
Milprint Inc. 57
Minnesota Mining & Mfg. Co. .. 79
Modern Decorating Company .. 382
Monsanto Chemical Co., Plastics Division 434
Monsanto Chemical Co., Organic Division 303
Moore & Munger 8
Mosstype Corporation 363

Nashua Gummed and Coated Paper Company 98
National Can Corporation 429
National Pack-Tainer Corporation 414
National Starch Products Inc. Inside Front Cover
Newark Paraffine & Parchment Paper Company 85
New Jersey Machine Corporation 294
Nichols Paper Products Company 305
Niemand Bros. Inc. 369
Noble, F. H., & Company 307

Ohio Boxboard Company, The .. 27
Old Dominion Box Co. 323
Olin Cellophane Division, Ecusta Paper Co. 250, 251
Olive Can Company 343
Oliver Machinery Company 381
Oneida Paper Products Inc. .. 22, 23
Orkin Institute of Industrial Sanitation 356
Owens-Illinois Glass Company 266, 267
Owens-Illinois Glass Co., Kimble Glass Division 331
Oxford Paper Company 37, 38

Package Machinery Company .. 256
Packaging Plastics, Inc. 350
Packer Machinery Corp. 416
Paisley Products Inc. 413
Pak-Rapid Inc. 425
Paper Machinery & Research, Inc. 174
Paterson Parchment Paper Co. .. 365
Peerless Roll Leaf Co., Inc. 400
Perfection Packaging 418
Perl Machine Mfg. Co. 382
Peter Partition Corp. 302
Peters Machinery Company 278
Pfaudler Company, The 43
Pierce Wrapping Machine Co. .. 403
Plastic Artisans, Inc. 357
Plax Corporation 34, 35
Pneumatic Scale Corp., Ltd. 187
Poly Perm Printing, Inc. 422
Potdevin Machine Company 66
Prolon Plastics, Prophylactic Brush Company 248

R. C. Can Company 275
Rapid Cutting Co., Inc. 410
Rayon Processing Co. of R. I., Inc. 379
Redington, F. B., Company 3
Republic Foil & Metal Mills, Inc. 86
Resina Automatic Machinery Co. 313
Rexford Paper Company 389
Reynolds Metals Company 12, 13
Rhinelander Paper Company ... 377
Richardson-Taylor Globe Corp. 285
Riegel Paper Corporation 182
Ritchie, W. C., and Company .. 88, 89
River Raisin Paper Company 271, 272
Robertshaw-Fulton Controls Co. . 360
Ross & Roberts Inc. 358
Roto Bag Machine Corp. .. 404, 405
Rowell, E. N., Co., Inc. 83
Rubber Latex Co. of America .. 379

Scandia Manufacturing Company 287
Schaefer Machine Co. 411
Seal-Peel, Inc. 420
Seal Spout Corporation 384
Sefton Fibre Can Company 373
Shaw-Randall Co., Inc. 415
Shellmar Products Corporation Back Cover
Smith, H. P., Paper Company ... 21
Southern Gravure Service, Inc. .. 353
Standard Collapsible Tube Co .. 172
Standard-Knapp, Division of Emhart & Mfg. Co. 359
Standard Printing Company 33
Star Band Co., Inc. 425
Steigerwald, A. M., Company ... 82
Stein Hall & Co., Inc. 387
Stokes & Smith Company 94
Stuyvestant Engineering Company 371
Sun Chemical Corporation, General Printing Ink Company Division 279
Sun Tube Corporation 84
Sweetnum, George H., Inc. 327
Switzer Bros., Inc. 375
Sylvania Division, American Viscose Corporation 41

Taber Instrument Corp. 356
Technopol Laboratories Limited . 176
Thilmany Paper Co. 412
Thompson, James, & Co., Inc. .. 403
Tompkins' Label Service 362
Transparent-Wrap Machine Corp. 351
Triangle Package Machinery Co. . 284
Tri-State Plastic Molding Co., Inc. 11
Troth, Bright, Page, Inc. 421
Tupper Corporation 186

Union Bag & Paper Corp. 49
Union Carbide & Carbon Corporation, Bakelite Division 67, 173
Union Paste Company 255
Unit Packet Company 389
U. S. Automatic Box Machinery Co., Inc. 180
U. S. Engineering Company 356
U. E. Envelope Company 87
U. S. Printing & Lithograph Co., The 320, 321

Vanant Products 372
Venesta Limited 31
Vertrod Corp. 388
Visking Corporation, The 185
Vlchek Tool Company, The 335

Western Waxed Paper Division .. 385
Whiteford Paper Co., Inc. 317
Wirz, A. H., Inc. 183
Wolverine Paper Converting Machinery Corporation 300, 399
Wrap-Ade Machine Co., Inc. 363
Wright Machinery Company 60

Zophar Mills, Inc. 391
Zumbiel, C. W., Company 403

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Attractive, re-use containers of Lustrex *are* profitable . . . because they help step up sales. And as sales increase, unit packaging costs drop, profits go up. Also, boxes molded of Lustrex actually cost less than most people think . . . can be molded on special high-speed automatic presses.

Contact Monsanto for up-to-date information on packaging for profit in plastics. Or, for the names of molders in your area who can provide low-cost plastics packages. The coupon is for your convenience.

Lustrex: Reg. U. S. Pat. Off.

See the high-speed automatic molding press in operation at the Monsanto exhibit at the 21st Annual National Packaging Exposition, Atlantic City, April 1-4.

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Company _____

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